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Digital Video Surveillance System - MagicRadar

Chaper 1

Hardware Installation

> Product Specification

> DVR Cards & Accessories

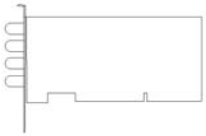
> Installation

1. Product Specification

Models	T04 / TS04 / CS04 / CS08 / CD08 / CS16 / CD16 / LS16 / LD16
Displaying Speed	30fps(NTSC), 25fps(PAL)/ 60, 50/120, 100/120, 100/240, 200/120, 100/240, 200/480, 400/480, 400
Recording Speed	30fps(NTSC), 25fps(PAL)/60, 50/120, 100/120, 100/240, 200/120, 100/240, 200/120, 100/240, 200
Video Inputs	4 / 4 / 4 / 8 / 8 / 16 / 16 / 16 / 16
Audio Inputs	1 / 2 / 4 / 4 / 8 / 4 / 8 / 4 / 8
Sensor Inputs	4 / 4 / 4 / 16 / 16 / 16 / 16 / 16 / 16
Alarm Outputs	2 / 2 / 4 / 8 / 8 / 8 / 8 / 8 / 8
Video Resolution	640×480, 640×240, 320×240(NTSC) / 768×576, 768×288, 384×288(PAL)
Compression Type	MPEG-4
Supported Signal Types	NTSC, PAL
Supported Network	TCP/IP, PSTN
Supported Backup Devices	HDD, DVD/R, CD/RW, Network Driver, etc.
Supported PTZ Protocols	C&B Tech-CND100200&SMART, Changzhou Minking-Minking, CTNCom-HD0670, Dong Yang Unitech-DSC230, DRAGON-DRAGON, Dynacolor-TPD7720, Geosan-GRX1000, GOLDENEYE-GOLDENEYE, InterM-VRX2201, KALATEL-KTD312, KJK-KJK, LG-LPTA100L, PELCO D&P, SAMSUNG-SCC641&SDZ160R& SPD1600&SPX1000&SPT1000, SONY-EVID3031, Vicon-Survey&2000, ZITEC-ZITECH, etc.
Operating Systems	Windows XP, Windows 2000, Linux
Supported Languages	English, Spanish, Japanese, French, Traditional Chinese, Simplified Chinese, Portuguese, Hebrew, Polish, German, Finnish, Greek, Hungarian, Korean, etc.

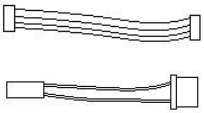
2. DVR Cards & Accessories

(1) T04 / TS04



a. Capture Card

b. DIO Board

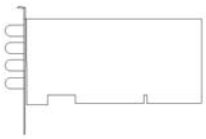


c. Cables: DIO Cable
Reset Cable

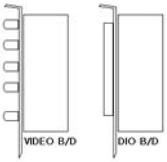
SYSTEM REQUIREMENTS

- **CPU:** Intel Celeron 1GHz (minimum)
- **Mother Board:** Intel Chipset (845D/PE, 850B/D, 865G/PE)
- **Memory:** 256MB
- **HDD:** 80GB
- **VGA:** ATI Card (32MB)
- **O/S:** Windows 2000, Windows XP, Linux

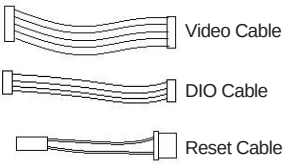
(2) CS04



a. Capture Card



b. Video DIO Board

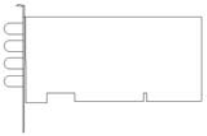


c. Cables

SYSTEM REQUIREMENTS

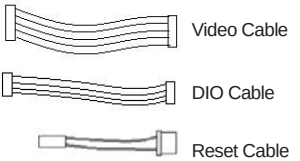
- **CPU:** Intel Celeron 1.7GHz (minimum)
- **Mother Board:** Intel Chipset (845D/PE , 850B/D, 865G/PE)
- **Memory:** 256MB
- **HDD:** 80GB
- **VGA:** ATI Card (32MB)
- **O/S:** Windows 2000, Windows XP, Linux

(3) CS08 & CS16



a. Capture Card

b. DIO Board

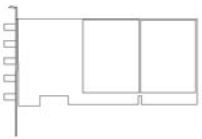


c. Cables

SYSTEM REQUIREMENTS

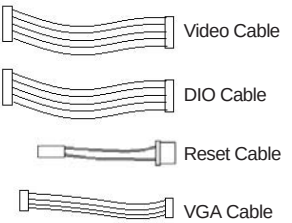
- **CPU:** Intel Celeron 1.7GHz (minimum)
- **Mother Board:** Intel Chipset (845D/PE, 850B/D, 865G/PE)
- **Memory:** 256MB
- **HDD:** 80GB
- **VGA:** ATI Card (32MB)
- **O/S:** Windows 2000, Windows XP, Linux

(4) LS16



a. Live (Real Time) Card

b. DIO Board

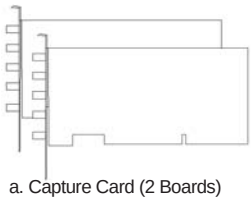


c. Cables

SYSTEM REQUIREMENTS

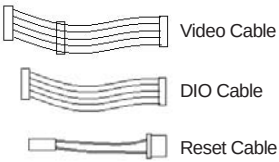
- **CPU:** Intel Celeron 2.0GHz (Minimum)
- **Mother Board:** Intel Chipset (845D/PE, 850B/D, 865G/PE)
- **Memory:** 256MB
- **HDD:** 80GB
- **VGA:** ATI RADEON 7000 (VIP Port) (32MB)
- **O/S:** Windows 2000, Windows XP

(5) CD08, CD16



a. Capture Card (2 Boards)
Master / Slave

b. DIO Board

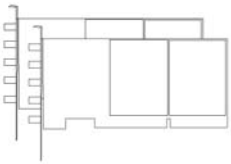


c. Cables

SYSTEM REQUIREMENTS

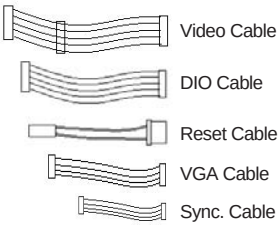
- **CPU:** Intel Pentium4 2.4GHz (minimum)
- **Mother Board:** Intel Chipset (845D/PE, 850B/D, 865G/PE)
- **Memory:** 256MB
- **HDD:** 80GB
- **VGA:** ATI Card (32MB)
- **O/S:** Win2000, Windows XP, Linux

(6) LD16



a. Live (Real Time) Card (2 Boards)
Master / Slave

b. DIO Board



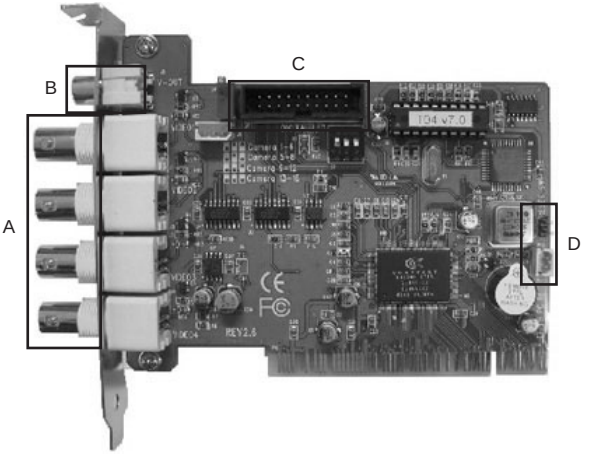
c. Cables

SYSTEM REQUIREMENTS

- **CPU:** Intel Pentium4 2.4GHz (minimum)
- **Mother Board:** Intel Chipset (845D/PE, 850B/D, 865G/PE)
- **Memory:** 256MB R-DRAM
- **HDD:** 80GB
- **VGA:** ATI RADEON 7000 (VIP Port) (32MB)
- **O/S:** Windows 2000, Windows XP

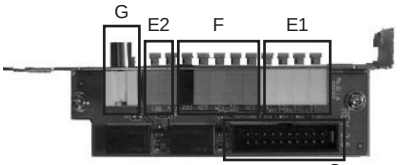
3. Installation

(1) T04 >> 30fps/30fps (NTSC), 25fps/25fps (PAL)

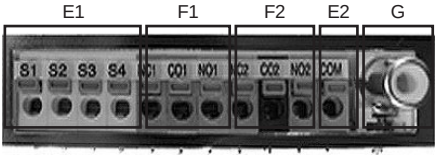


A. Camera Inputs B. TV-out C. DIO Cable Connector D. Reset Connector

Connect one end of Watchdog cable to “D” and the other end to the reset switch on the mother board of MagicRadar System.



DIO Board (Side)



DIO Board (Front)

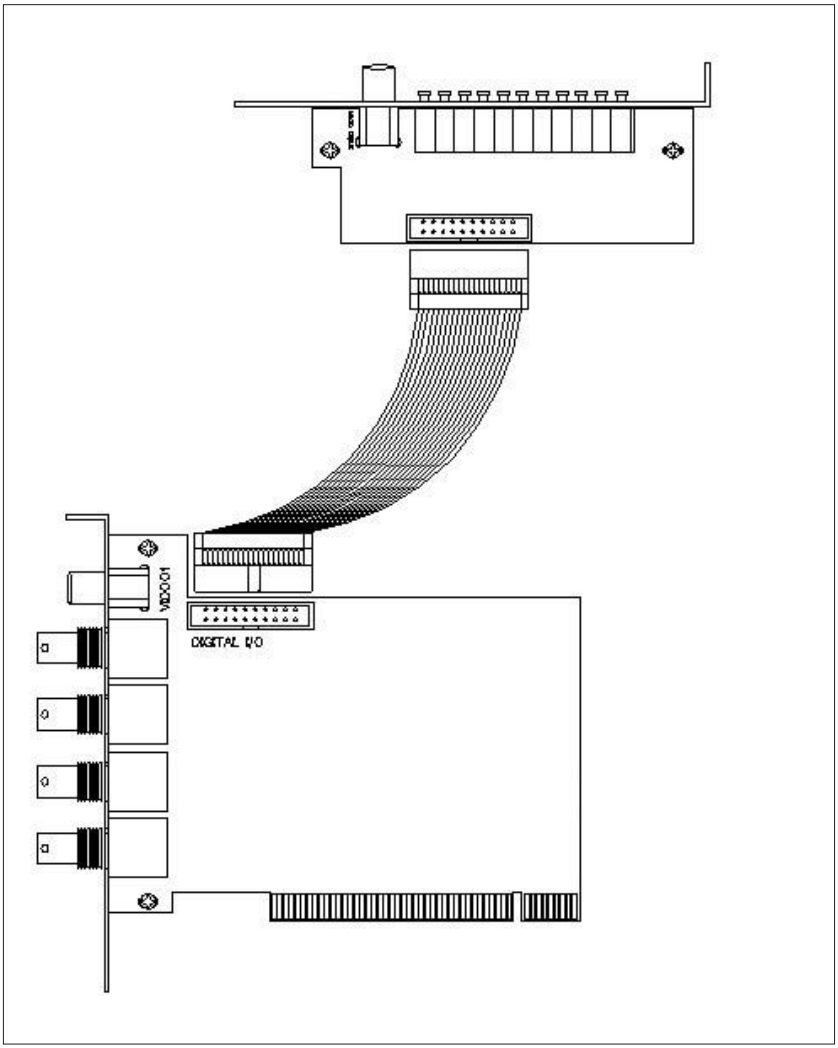
E1. Sensor Inputs (⊕ only) E2. Sensor Input (⊖ only) F1&F2. Control Outputs G. Audio Input

Put ⊕ cable into the hole of output device.

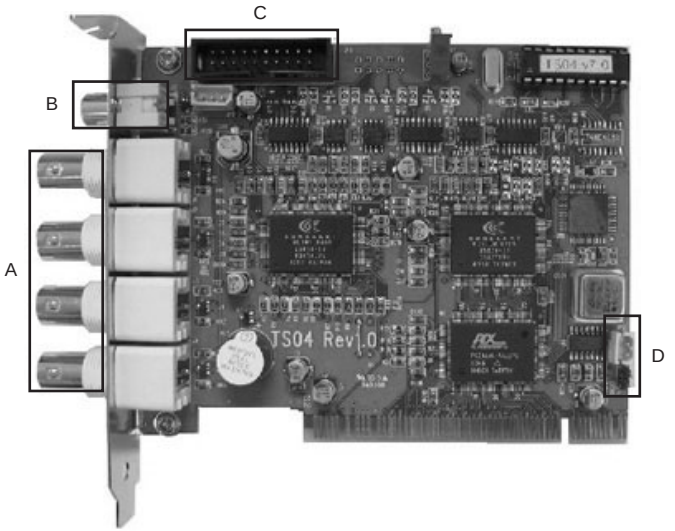
Types of Output Devices: NC (Normal Close), NO (Normal Open)

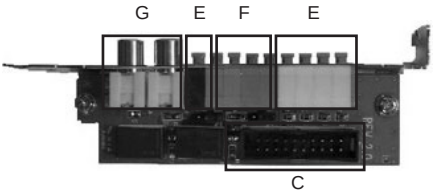
What is Watchdog?

Watchdog is a function that keeps MagicRadar alive at all times. In other words, Watchdog will automatically reboot PC if it becomes unstable or shows abnormal status (i.e. abnormal shutdown, Windows error, etc.)

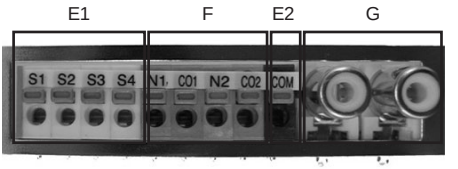


(2) TS04 >> 60fps/60fps (NTSC), 50fps/50fps (PAL)





DIO Board (Side)



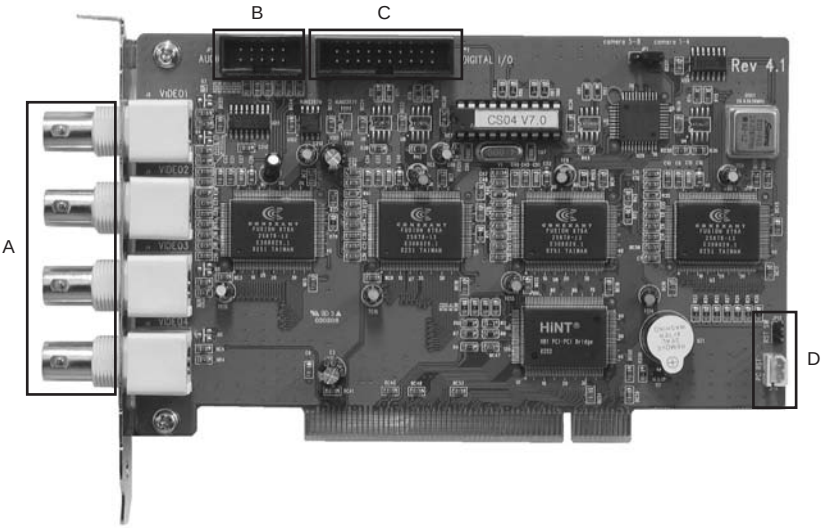
DIO Board (Front)

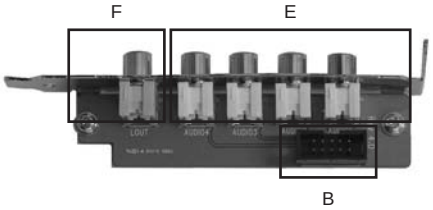
A. Camera Inputs	D. Reset Connector	F. Control Outputs
B. TV-out	E1.Sensor Inputs (⊕ only)	G. Audio Inputs
C. DIO Cable Connector	E2.Sensor Input (⊖ only)	

▶ For details, refer to page 10 & 11.

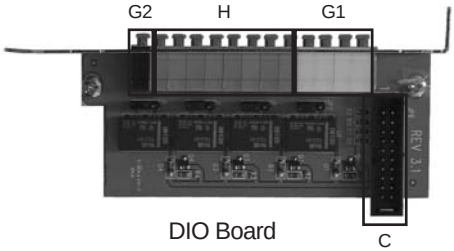
VIDEO1
DIGITAL I/O

(3) CS04 >> 120fps/120fps (NTSC), 100fps/100fps (PAL)





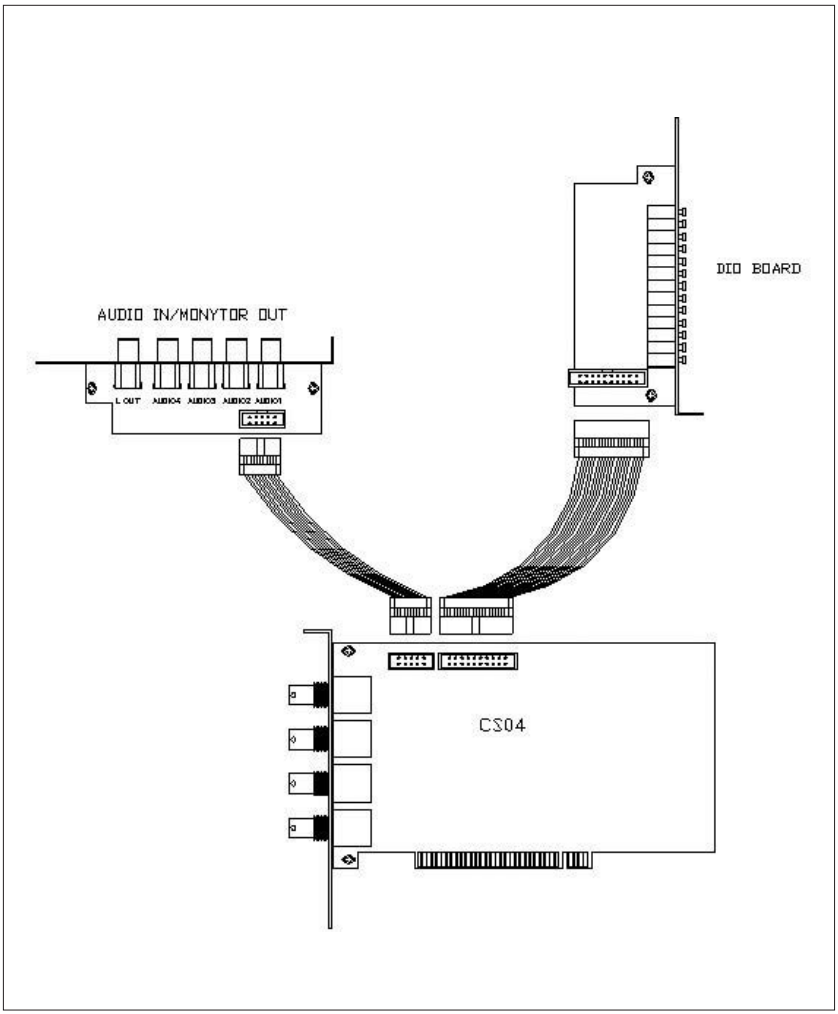
Audio Board



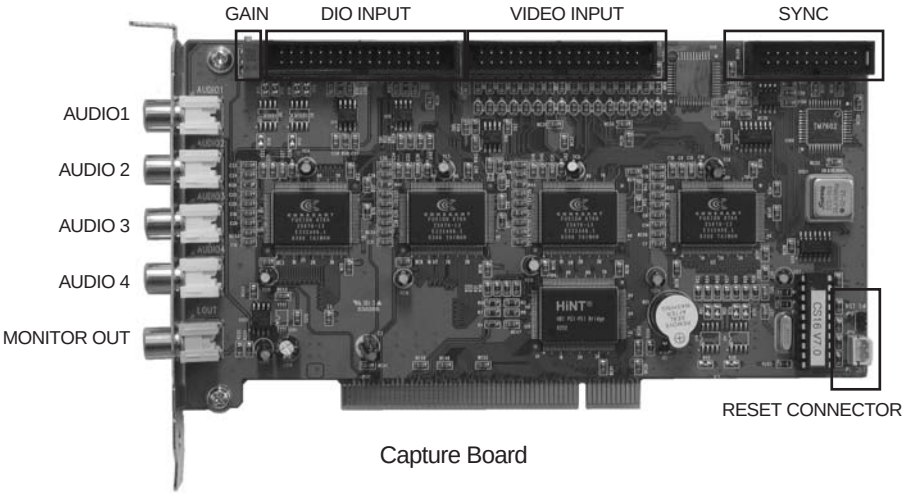
DIO Board

A. Camera Inputs	D. Reset Connector	G1. Sensor Inputs (⊕ only)
B. Audio Cable Connector	E. Audio Inputs	G2.Sensor Input (⊖ only)
C. DIO Cable Connector	F. TV-out	H. Control Outputs

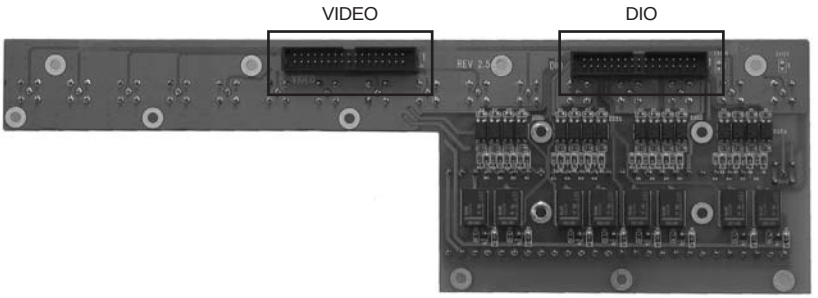
▶ For details, refer to page 10 & 11.


AUDIO IN/MONYTOR OUT
L OUT
AUDIO4
AUDIO3
AUDIO2
AUDIO1
DIO BOARD
CS04

(4) CS08 / CS16 >> 120fps/120fps (NTSC), 100fps/100fps (PAL)



Capture Board

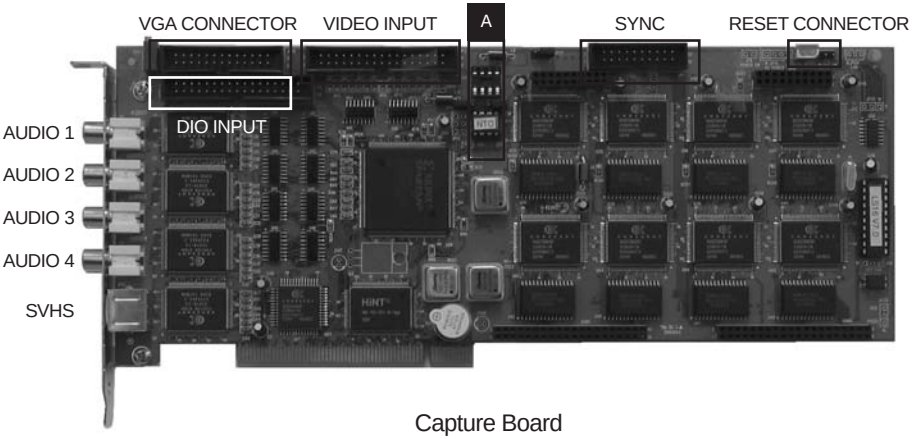


DIO Board (Front)

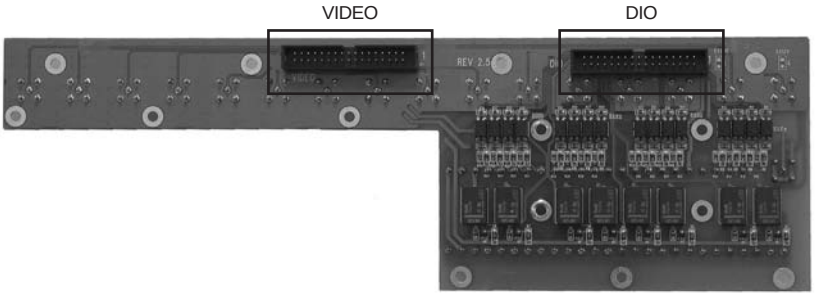
- **Gain:** Gain Control
- **DIO Input:** Connect one end of DIO cable to the DIO Input on Capture Board and the other end to the DIO on DIO Board.
- **Video Input:** Connect one end of video cable to the Video Input on Capture Board and the other end to the Video on DIO Board.
- **Audio:** 4 audio channels.
- **Monitor Out:** 1 monitor out.
- **Reset Connector:** Connect one end of Watchdog cable to reset connector and the other end to the reset switch on the mother board of MagicRadar System.

CS16/08

(5) LS16 >> 480fps/120fps (NTSC), 400fps/100fps (PAL)

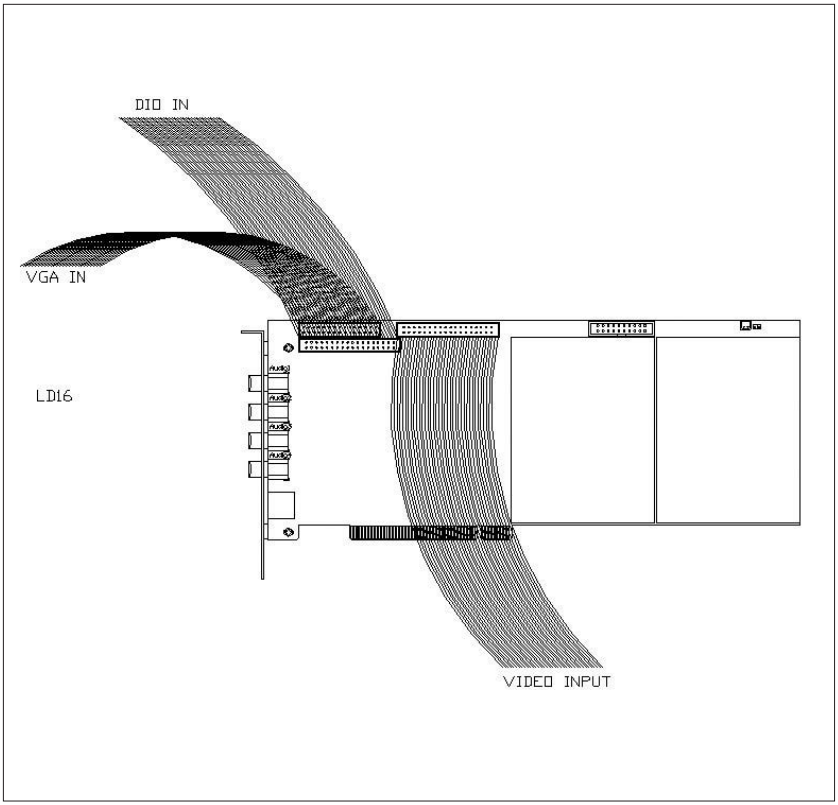


Capture Board

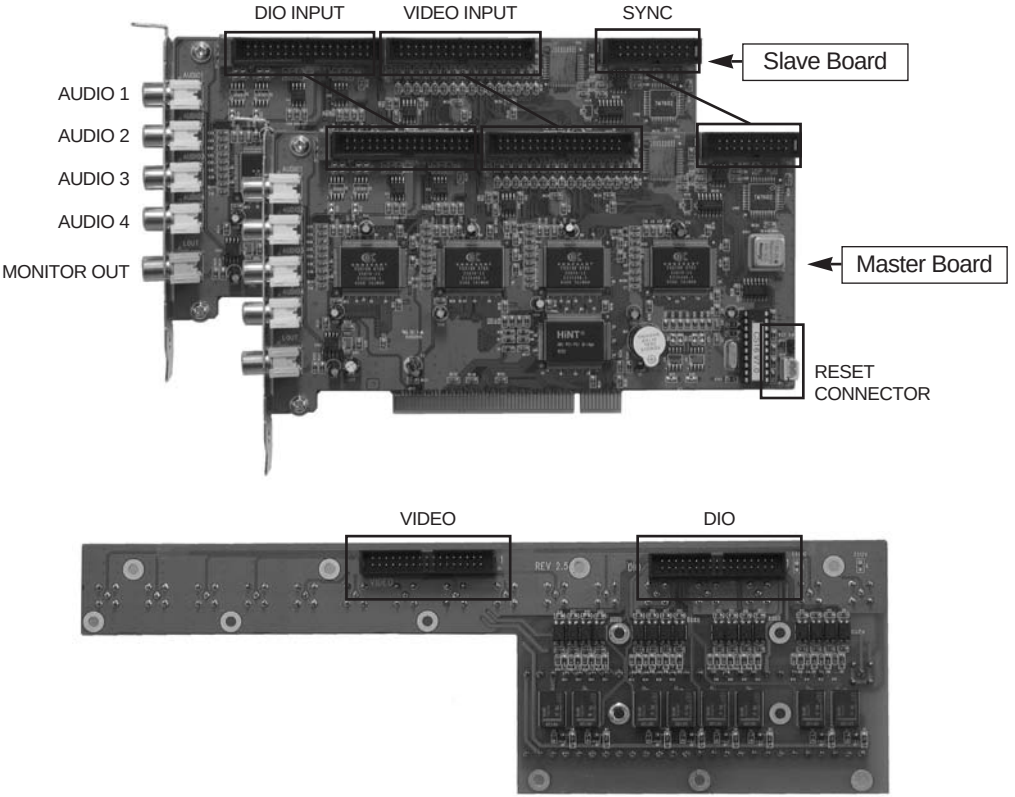


DIO Board (Front)

- **DIO Input:** Connect one end of DIO cable to the DIO Input on Capture Board and the other end to the DIO on DIO Board.
- **Video Input:** Connect one end of video cable to the Video Input on Capture Board and the other end to the Video on DIO Board.
- **SYNC:** Not in use
- **Audio:** 4 audio channels
- **SVHS:** 1 SVHS output
- **Reset Connector:** Connect one end of Watchdog cable to reset connector and the other end to the reset switch on the mother board of MagicRadar System.
- **A:** FPGA chip (NTSC or PAL)
- **VGA Connector:** Connect one end of VGA cable to the VGA Connector on Capture Board and the other end to the VIP port on VGA card.

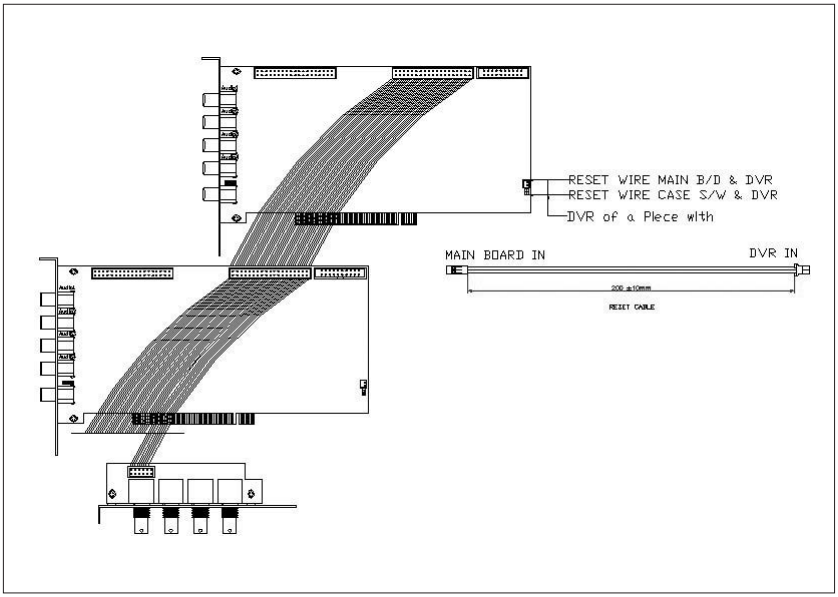

DIO IN
VGA IN
LD16
VIDEO INPUT

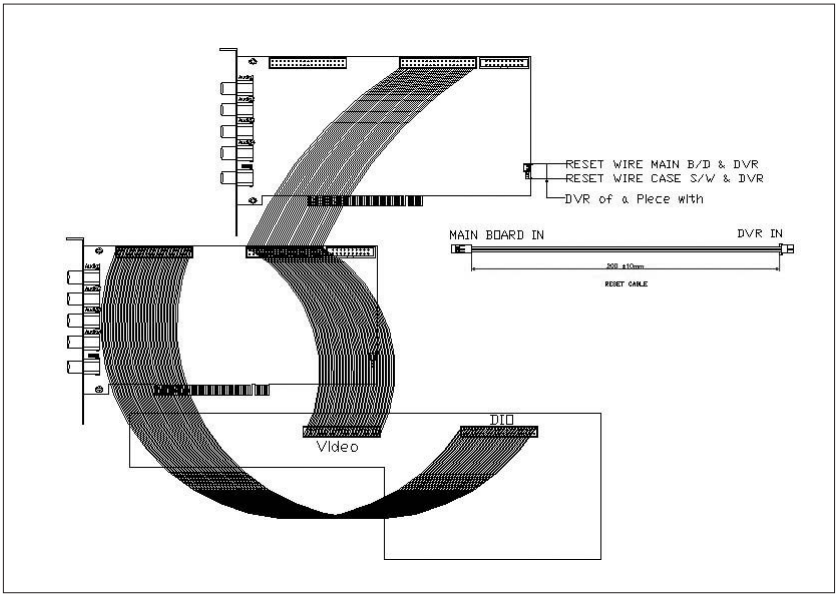
(6) CD08 / CD16 >> 240fps/240fps (NTSC), 200fps/200fps (PAL)



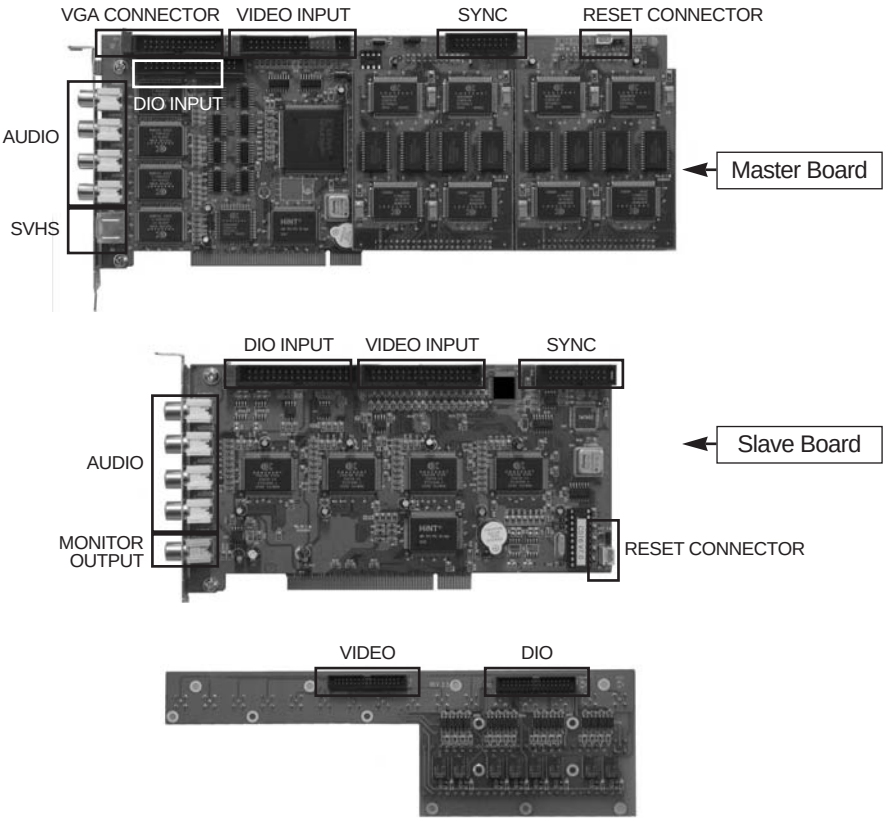
DIO Board

- **DIO Input:** Connect one end of DIO cable to the DIO Input on Master Board and the other end to the DIO on DIO Board.
- **Video Input:** Connect one end of video cable to the Video Input on Slave Board, the middle to the Video Input on Master Board and the other end to the Video on DIO Board.
- **SYNC:** Not in use
- **Audio:** 8 audio channels
- **Monitor Out:** 2 monitor outs.
- **Reset Connector:** Connect one end of Watchdog cable to the reset connector and the other end to the reset switch on the mother board of MagicRadar System.

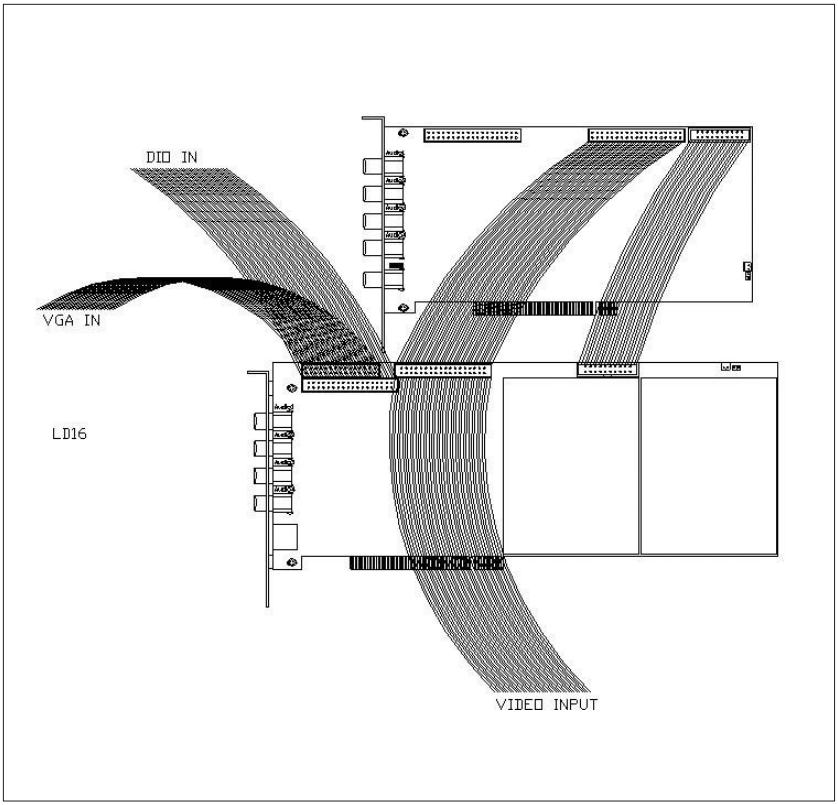

RESET WIRE MAIN B/D & DVR
RESET WIRE CASE S/W & DVR
DVR of a Piece with
MAIN BOARD IN
DVR IN
200 ±10mm
RESET CABLE


RESET WIRE MAIN B/D & DVR
RESET WIRE CASE S/W & DVR
DVR of a Piece with
MAIN BOARD IN
DVR IN
200 ±10mm
RESET CABLE
DIO
Video

(7) LD16 >> 480fps/240fps (NTSC), 400fps/200fps (PAL)



- **DIO Input:** Connect one end of DIO cable to the DIO Input on Master Board and the other end to the DIO on DIO Board.
- **Video Input:** Connect one end of video cable to the Video Input on Slave Board, the middle to the Video Input on Master Board and the other end to the Video on DIO Board.
- **SYNC:** Connect one end of SYNC cable to the SYNC on Master Board and the other end to the SYNC on Slave Board.
- **Reset Connector:** Connect one end of Watchdog cable to reset connector and the other end to the reset switch on the mother board of MagicRadar System.
- **VGA Connector:** Connect one end of VGA cable to the VGA Connector on Master Board and the other end to the VIP port on VGA card.


DIO IN
VGA IN
LD16
VIDEO INPUT

Digital Video Surveillance System - MagicRadar

Software Installation

> Automatic Installation

> Manual Installation

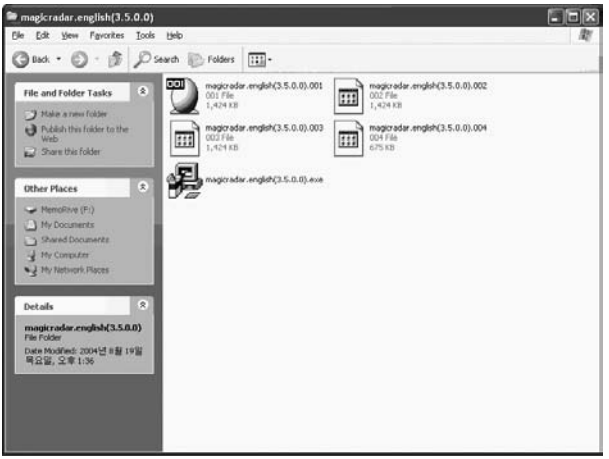
> Remote Client Installation

> Uninstallation

> Program Execution

Steps:

1. Insert MagicRadar S/W.
2. Double-click “magicradar(3.5.0.0).exe”.



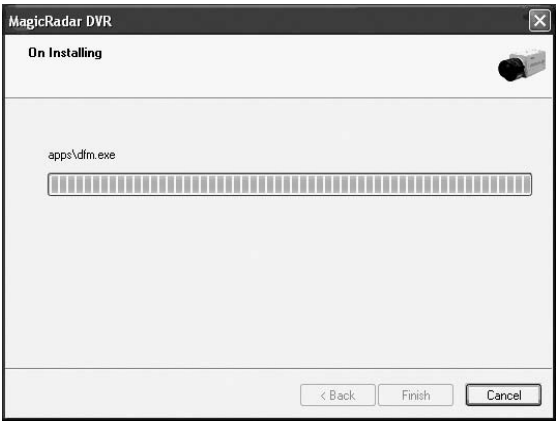
1. Automatic Installation

(1) Definition

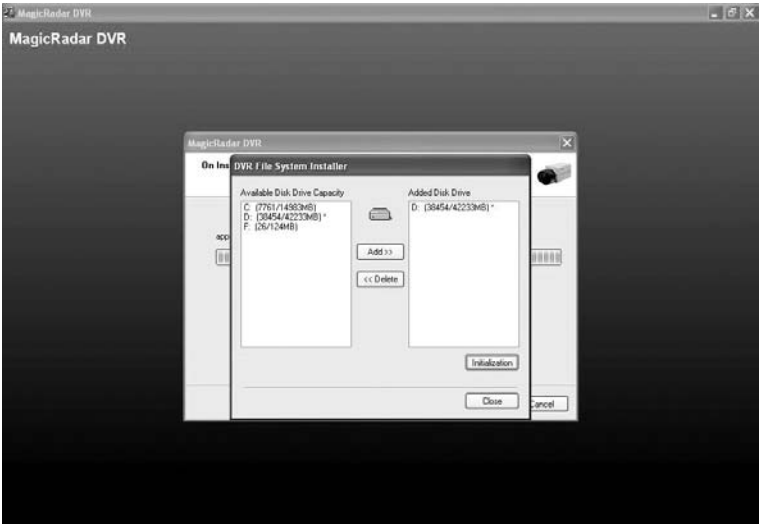
It is a method to install all the relevant softwares automatically. Select “Automatic Installation” at all times unless only “MagicRadar Client” is to be installed.

(2) Installation Method Selection

(3) Installing Drivers



(4) DVR File System Installation



Definition:

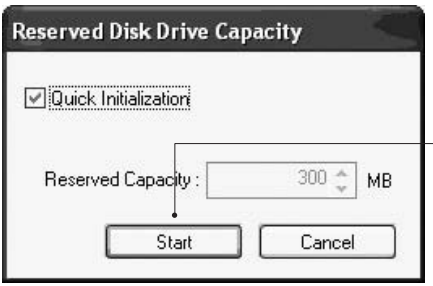
Occupying disk capacity to record data

Steps:

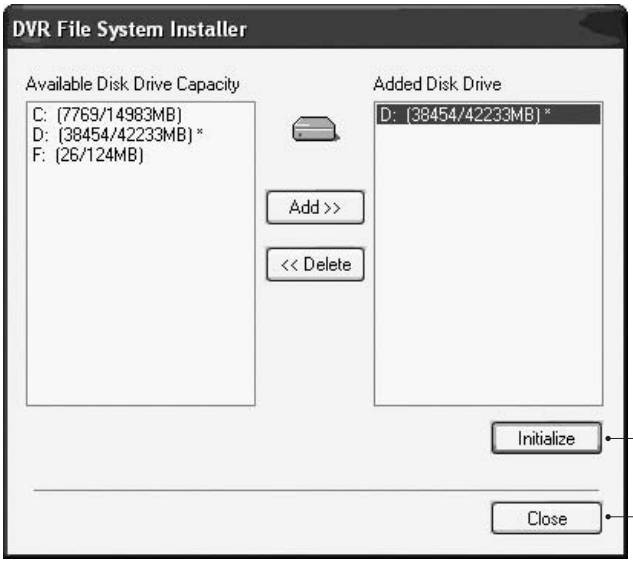
1. Select drives from “Available Disk Drive Capacity”
2. Click “Add”.
3. Click “Initialization”.

Caution:

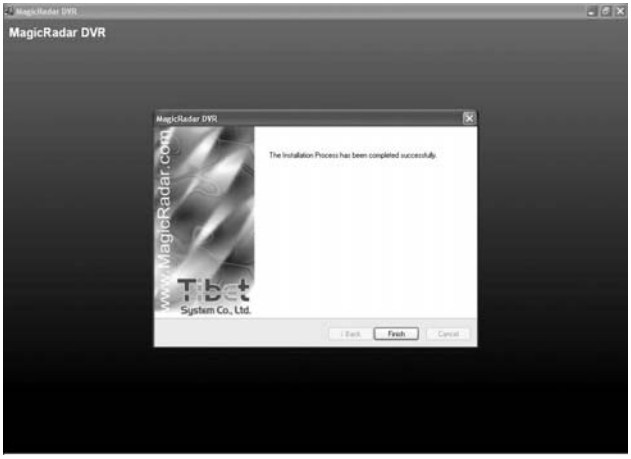
1. Be very careful not to add “C Drive”, for it is used for O/S and the DVR softwares.
2. HDD has to be initialized to record data



Selecting “Quick Initialization” will lead to the initialization of entire disk capacity added. Otherwise, put in desirable number to initialize. Note that the number can not exceed total capacity added.



(5) Completion & Retry



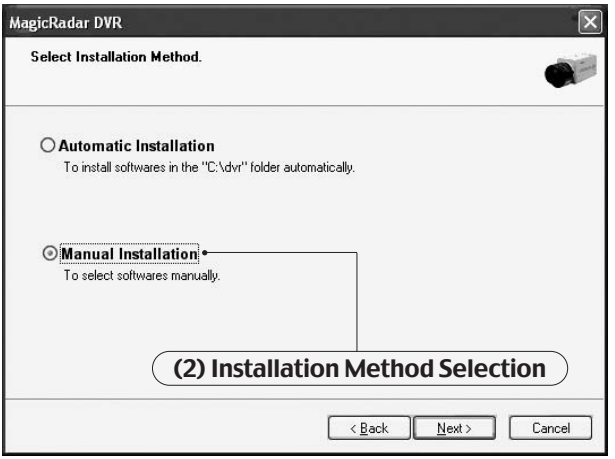
Retry the entire procedure if an error message is displayed.

2. Manual Installation

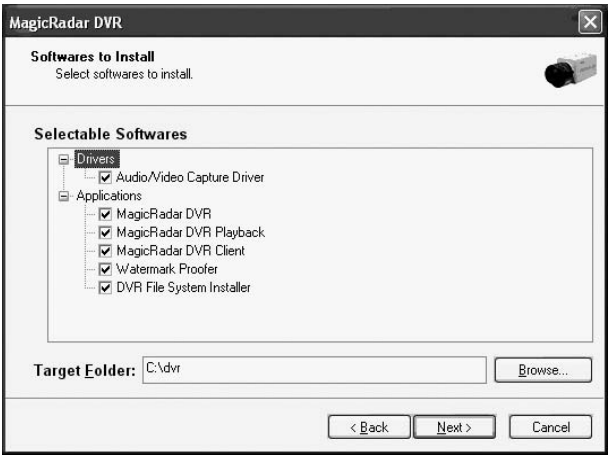
(1) Definition

It is a method to install selected softwares manually.

Select “Manual Installation” only in the case of “MagicRadar Client” installation.



(3) Software Selection

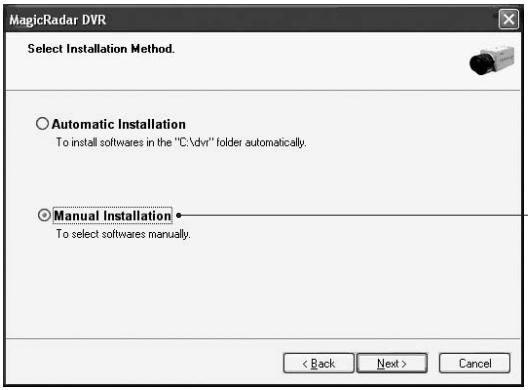


Note: The rest of the procedures are the same as “Automatic installation”.

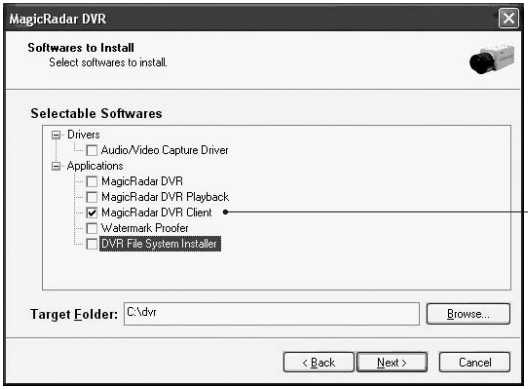
3. Remote Client Installation

(1) Using MagicRadar S/W

Double click
"magicradar(3.5.0.0), exe".

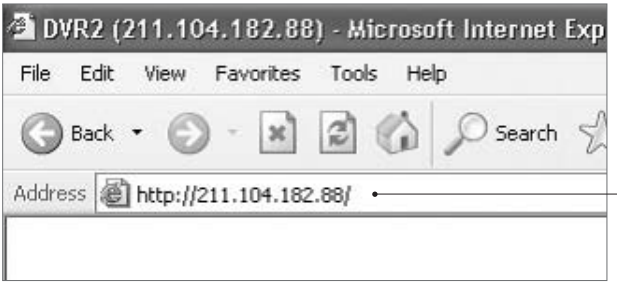


Select "Manual Installation".

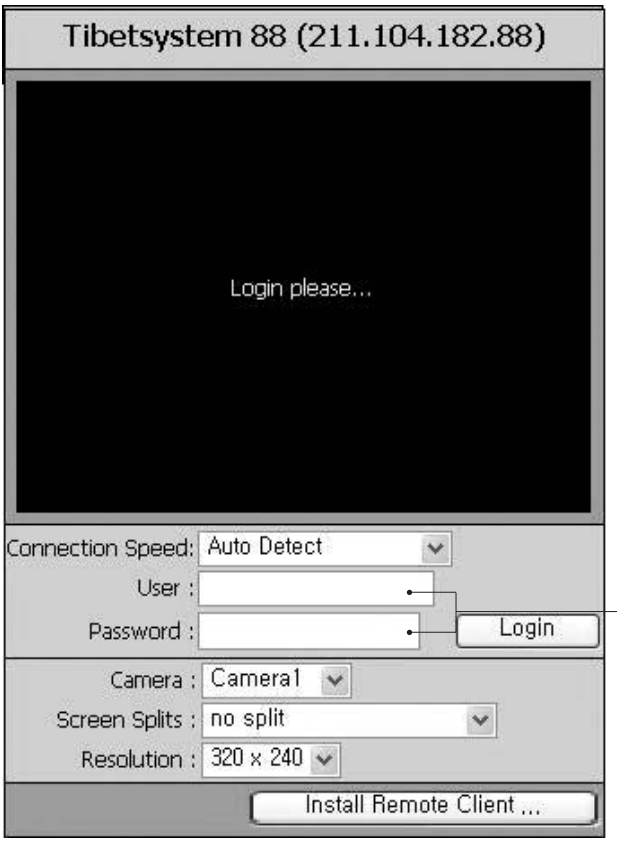


Select "MagicRadar DVR
Client" only.

(2) Using Web Browser

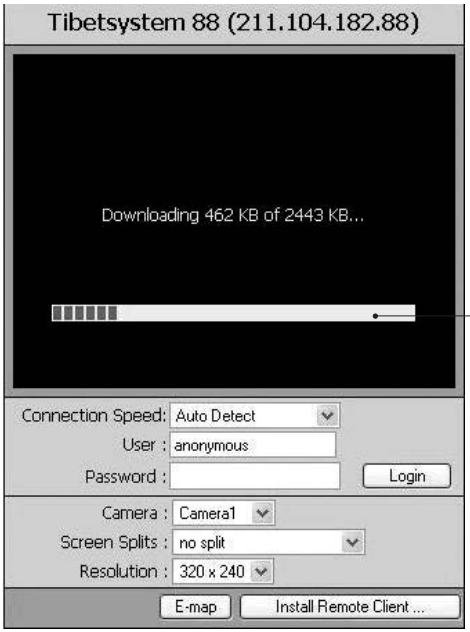


1. Type in the IP address of DVR server.



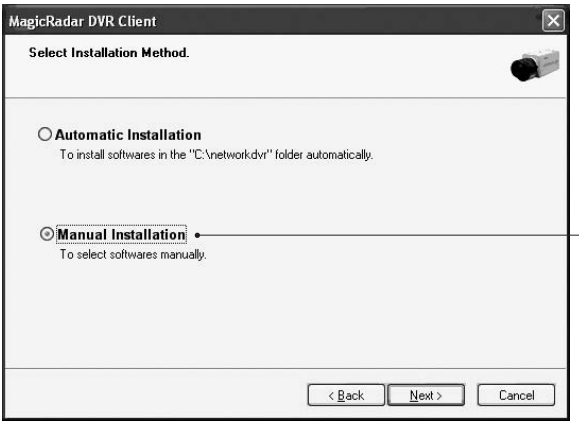
2. Log in first before downloading Remote Client Program.

3. Click the “Install Remote Client” button for downloading.

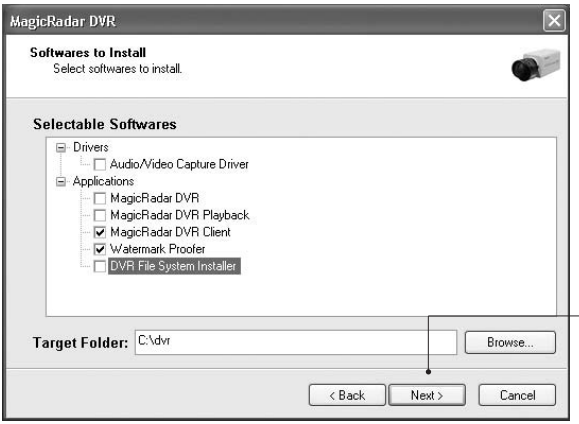


4. Downloading in progress

5. Click “Next” to proceed.

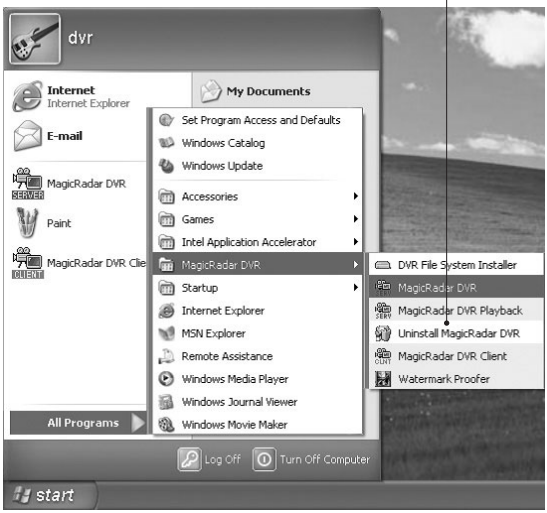


6. Select “Manual Installation”.



7. Click “Next” to finish Installation process.

4. Uninstallation



5. Program Execution

Find the icons on the desktop to execute “MagicRadar DVR” and “MagicRadar DVR Client”.
Or find “MagicRadar DVR” under “All Programs”.

Digital Video Surveillance System - MagicRadar

Main System Application

> Startup Screen

> Login

> Exit / Logout

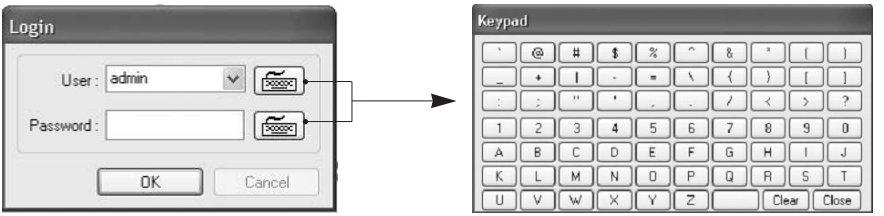
> Control Screen

> Setup (System/Device/Event/Schedule/Network/User)

1. Startup Screen

The above screen will appear as MagicRadar DVR system starts.

2. Login



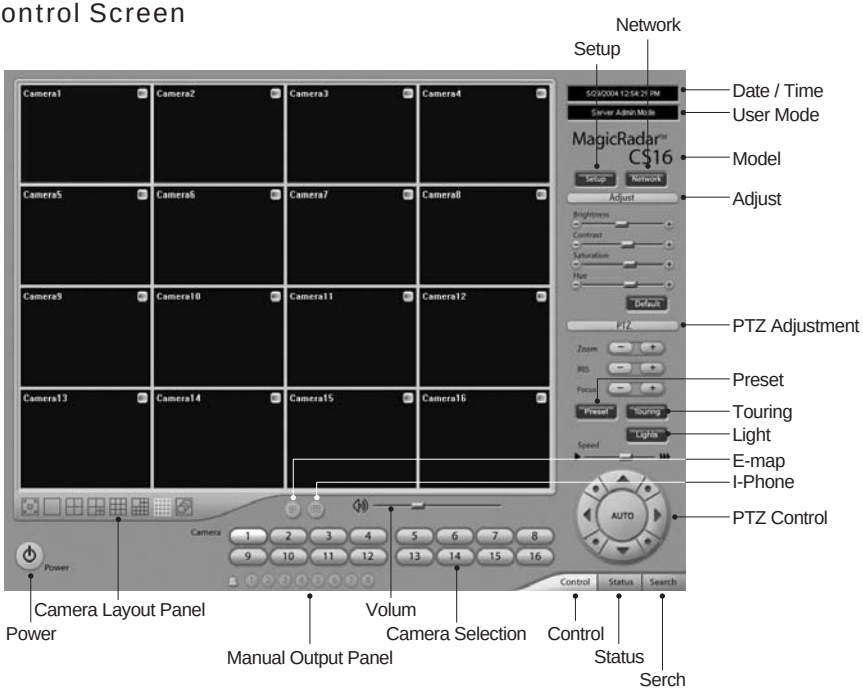
The default values for User and Password are “admin” and “no password”. Click “OK” to execute MagicRadar DVR system. To give “admin” a password and to create new users, certain configurations are required(Setup/User). Only “admin” and users with appropriate authorization have access to the Setup menu.

Note: Vertual keypad is available wherever typing is required.

3. Exit/Logout

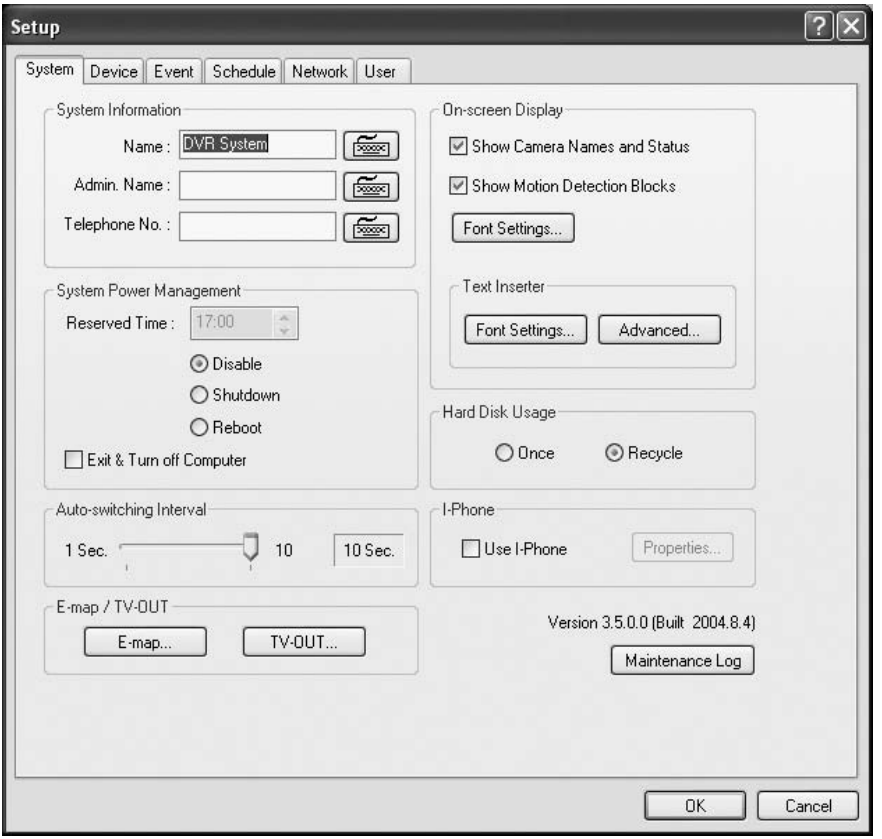
To end MagicRadar DVR system, select “Exit” and type in password.

4. Control Screen

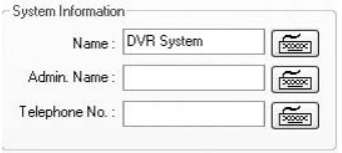


5. Setup

(1) System

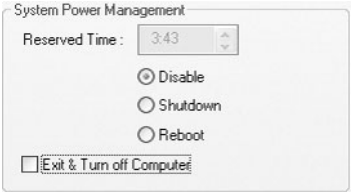


● **System Information**



Create a DVR name and put in admin. info.
They will be displayed on outgoing e-mails.

● System Power Management



Reserved time: Time set to shut down or to reboot computer

Disable: selected when System Power Management is not to be used

Shutdown: selected when shutting down computer is required at the time set

Reboot: selected when rebooting computer is required at the time set

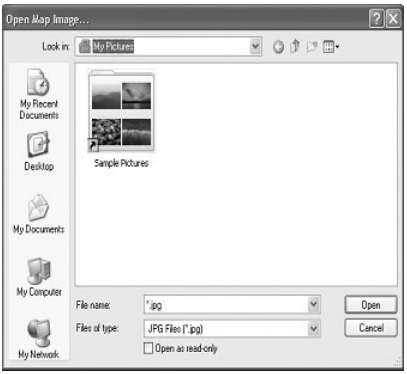
Exit & Turn off Computer: By checking the box, computer will be turned off automatically as a user exits from MagicRadar DVR system.

● Auto-switching Interval

Auto-switching Interval is a function that allows green square around selected camera to move to the next one at the interval set.

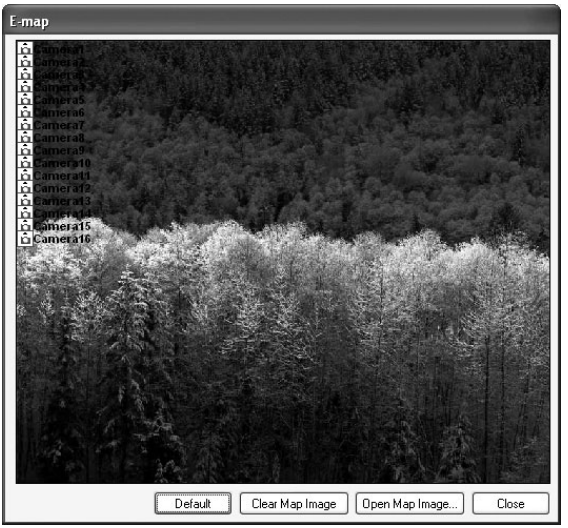
e.g.) Camera1 ✪ 10 sec. ✪ Camera2 ✪ 10 sec. ✪ Camera3⋯.

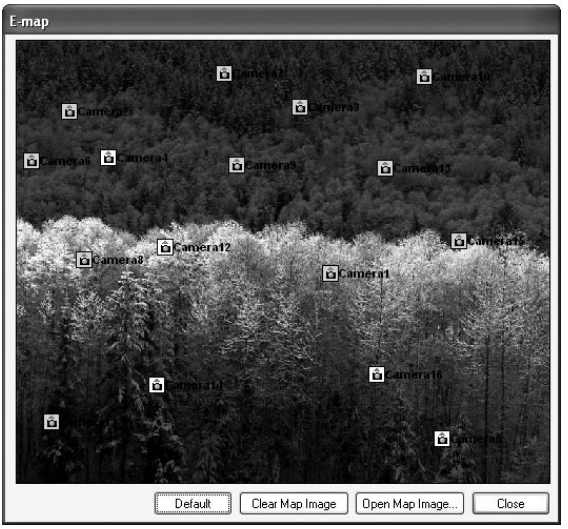
● E-map



Click on the “E-map” button to design E-map.

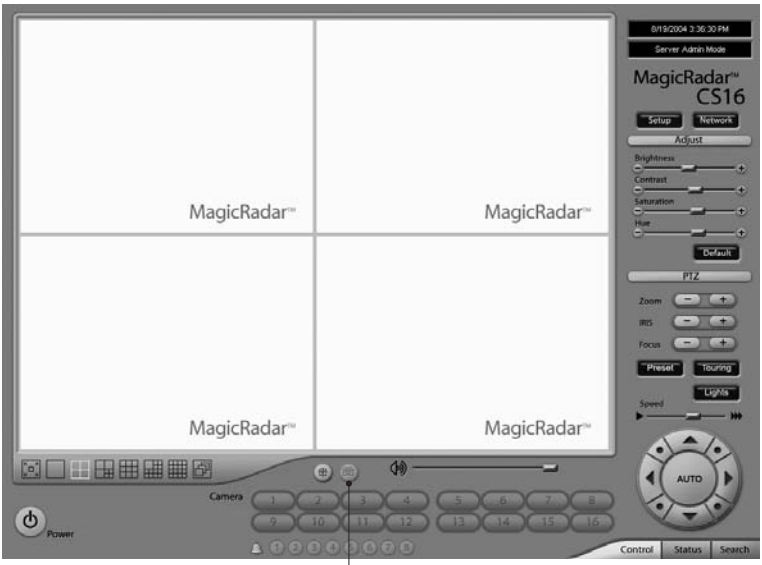
Click on “Open Map Image” to select an E-map image.





The above is a designed E-map sample.

Drag mouse to position Camera/Input/Output and design E-map.



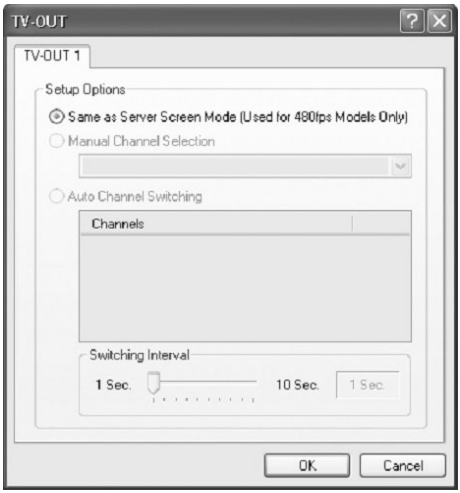
Click on the E-map button positioned next to the I-phone button to open E-map.

White Camera : Not on Recording, **Yellow Camera:** On Recording,

White Input/White Output : Not Activated, **Yellow Input/Yellow Output:** Activated

● **TV-OUT**

TV-OUT is a function that sends selected cameras to a call monitor (external analog monitor). Click on the “TV-OUT” button for setup.



The models such as CD (240FPS/240FPS) & LD16 (480FPS/240FPS) support 2 TV-OUTs and the rest of the models support 1.

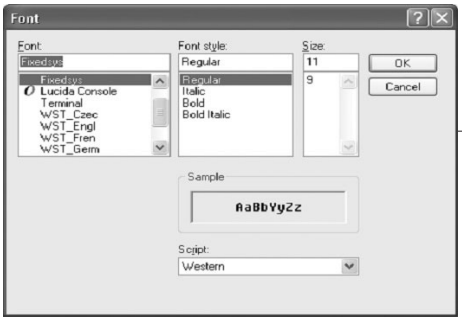
Setup Options :

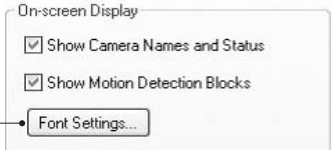
1. Same as Server Screen Mode (For LS (480FPS/120FPS) only) - TV-OUT Monitor displays what's on DVR server.
Manual Channel Selection - Channels are selected manually. Once "Manual Channel Selection" is selected, channels can also be selected manually on Control screen by placing mouse on camera picture and clicking the right mouse.

2. Auto Channel Switching - Selected channels rotate to display at the switching interval set.

Switching Interval:
The length of time to stay at one camera

● On-screen Display





Show Camera Names and Status :
By checking it, camera names and status will be displayed on camera pictures.

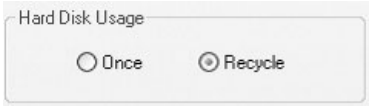
Show Motion Detection Blocks :
By checking it, green motion detection blocks will be displayed on camera pictures when recording schedule is set as "M" (Setup/Schedule).

● Text Inserter

Text Inserter is a function that allows MagicRadar DVR system to integrate with POS machines.

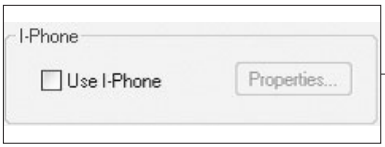
Simply install "text_inserter_plugin_for_ pos" on DVR Server, and transactions that occur will be displayed on selected camera pictures. Transaction recording and text search are possible as well. For more detailed installation and information. Refer to Appendix 1.

● Hard Disk Usage



Hard Disk Usage is to select data storage method. If “Once” is selected, data will be stored up to the point where HDD reaches its maximum capacity. If “Recycle” is selected, data will be overwritten from the point HDD reaches its maximum capacity based on “First In First Out”.

● I-Phone



I-phone is “Two-Way Audio Communication”.
Check the box, go to Control Screen, and click on the I-phone button for audio communication. For more detailed I-phone setup, refer to Appendix 2.

Port No.:
The port number for I-phone use has to be set up. Normally the default value is good to use.

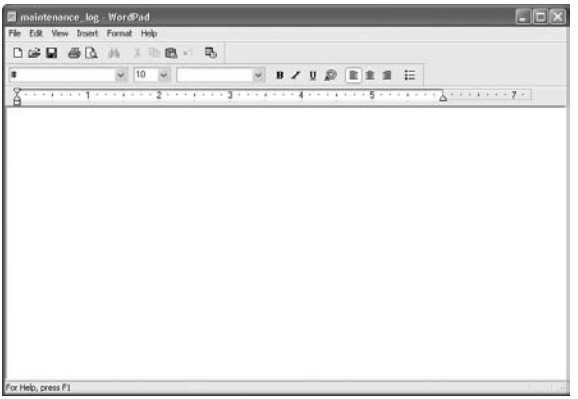
Timeout:
It indicates the maximum length of connection trial. If there is no response within the value set, call will be cancelled.

● **Version Info.**

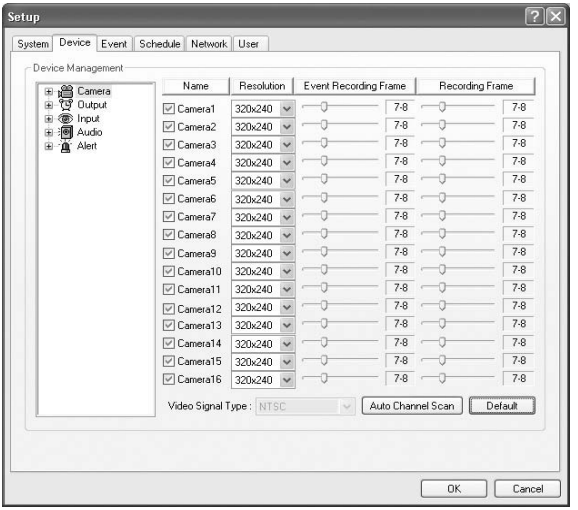
Version 3.5.0.0: version name
Built 2004. 8. 4: built date

● **Maintenance Log**

It is used to record and view maintenance history.



(2) Device



Device sub-screen is divided into 5 different setup categories; Camera, Output, Input, Audio and Alert.
All devices in each category can be set up on one same page.

● Camera

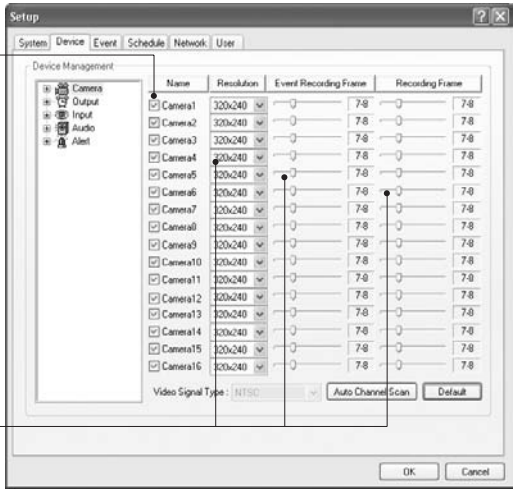
Cameras will be enabled by checking the boxes.

Different resolutions and recording frame rates can be set up for different cameras.

Video Signal Type:
Select either NTSC or PAL.

Auto Channel Scan:
It automatically identifies all the active video channels. Make sure to always click and scan after S/W version change.

Default:
It sets “Event Recording Frame” and “Recording Frame” as default values.



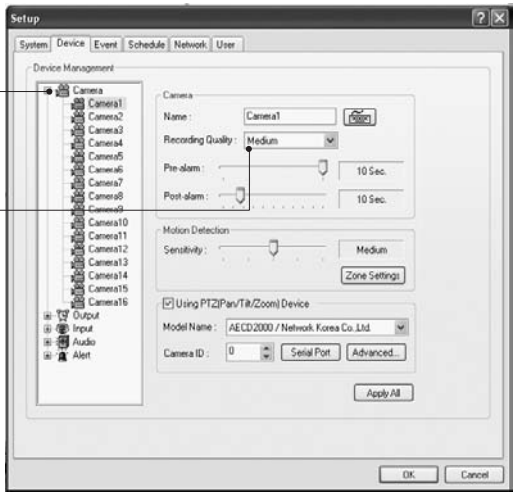
[Camera]

Double-click on “Camera” for more individual Camera setup.

Select recording picture quality.

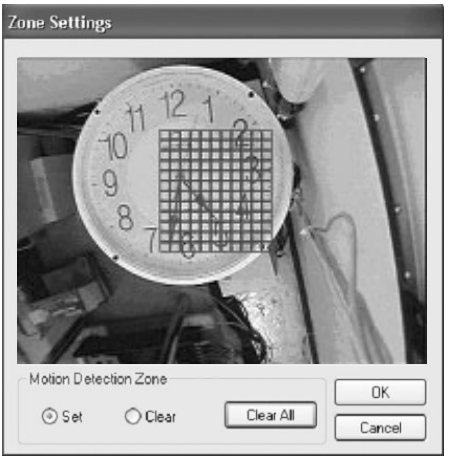
Pre-alarm (max. 10 sec.):
Length of time to be recorded before event

Post-alarm (max. 60 sec.):
Length of time to be recorded after event



[Motion Detection]

MagicRadar DVR system is designed to have unlimited motion detection zones and to have different motion detection sensitivity levels.



Zone Settings:

1. Select “Set”, drag mouse to set motion detection zones and click “OK”.
2. Select “Clear” to clear certain areas inside motion detection zones.
3. Click on “Clear All” to clear all the motion detection zones.

[PTZ Camera Setup]

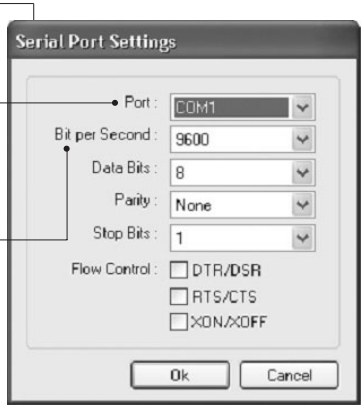
When using a PTZ camera, check the box and select a model name. MagicRadar DVR system supports nearly 40 different protocols.

Camera ID:
Leave it as it is if only one PTZ camera is used. Otherwise, give each camera a different number.

Select the port used for PTZ cmera.

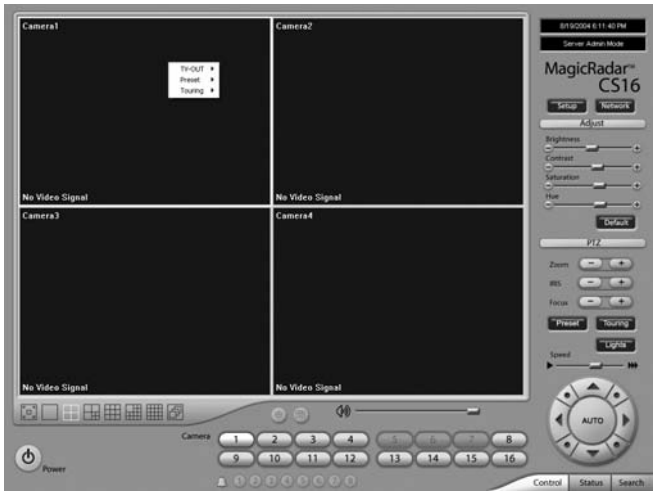
Bit per Second:
It is 9600 for most of PTZ cameras. But a few can have different values. Refer to camera manual.

Apply All:
The same settings will be applied to the rest of the cameras by clicking on “Apply All”.

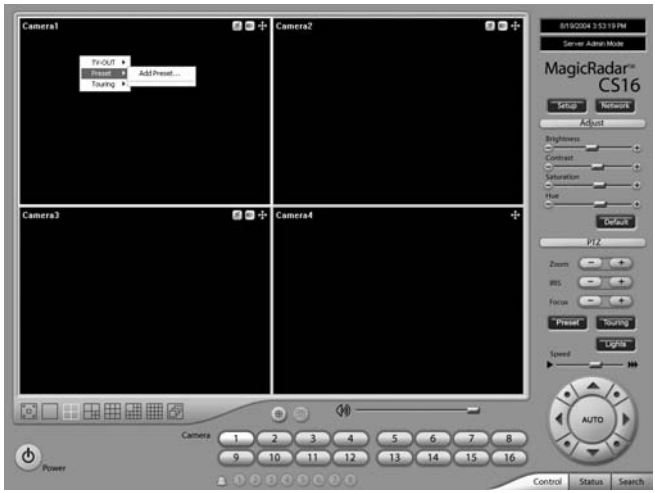


[Preset & Touring]

Either click the right mouse on camera picture or click on the Preset (Touring) button for Preset (Touring) setup and use.



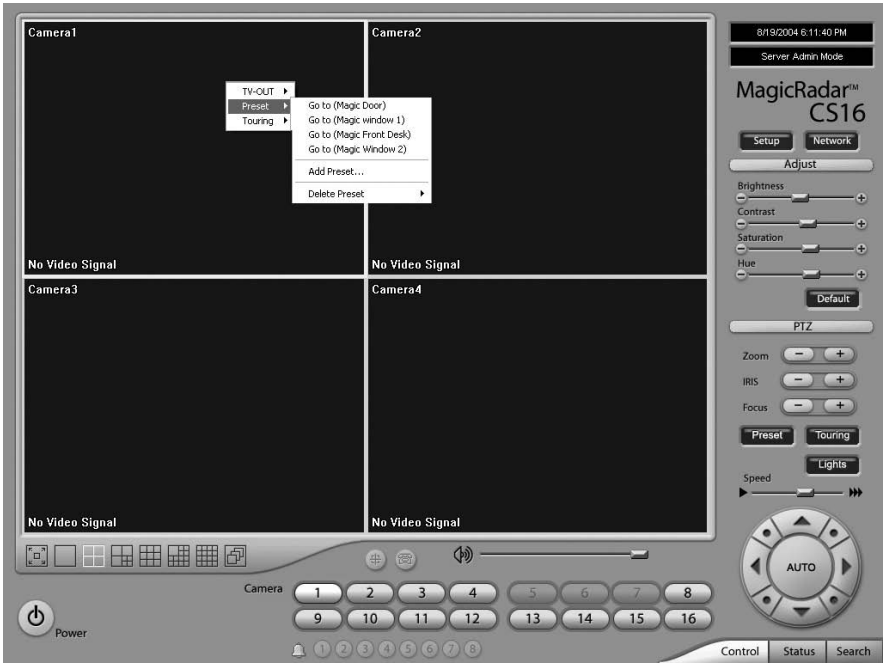
[Preset]



“Preset” is a function that enables a camera to move from one position to another automatically.

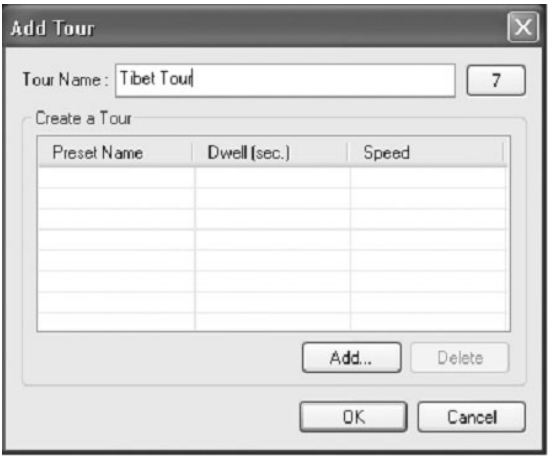
Steps to Set up Presets:

1. Move camera to a desired position using the PTZ Control on Control screen.
2. Click the right mouse.
3. Name the preset.
4. Repeat the above for setting up as many as 256 presets.
5. Click the right mouse to run preset and click the “Auto” button to stop it.



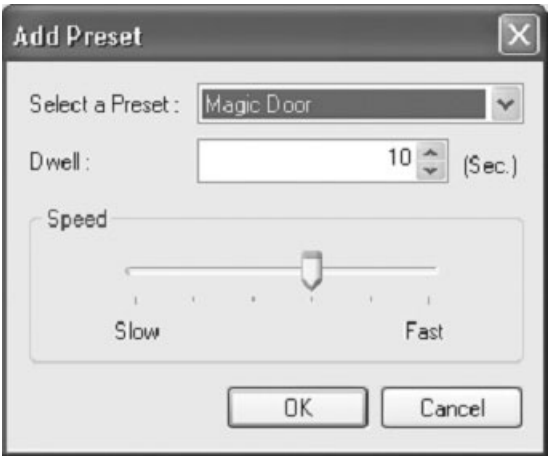
[Touring]

"Touring" is a function that enables a group of selected presets to work repeatedly.



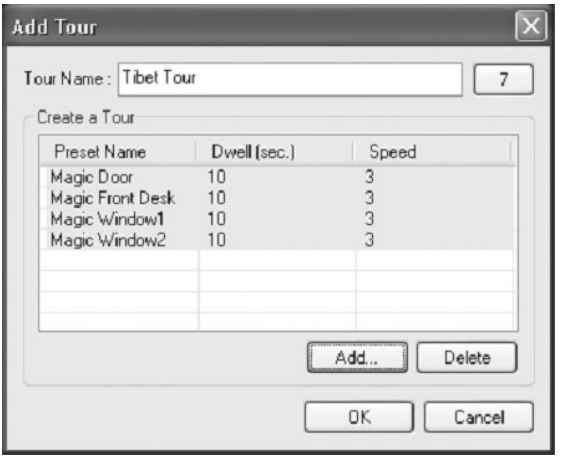
Steps to Set up a Tour:

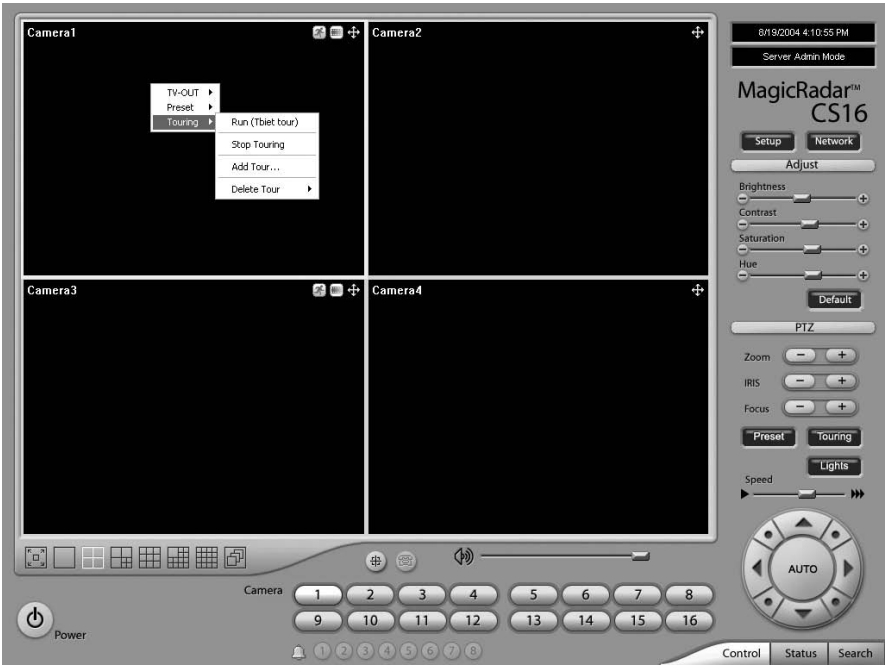
1. Click the right mouse.
2. Name the tour.
3. Click on "Add".
4. Select a preset.
5. Click "OK".
6. Repeat the above to have more than 1 preset in the tour.
7. Click the right mouse to run the tour.



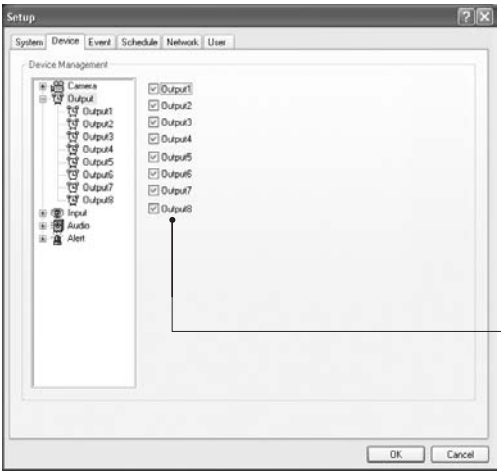
Dwell:
The length of time that camera will pause before moving to the next preset.

Speed:
Moving speed for selected preset.

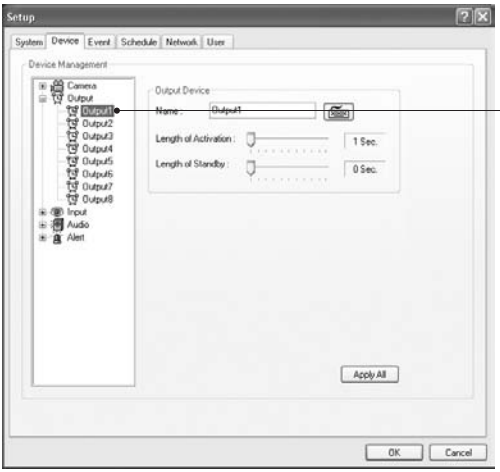

Add Tour
Tour Name :
Tibet Tour
7
Create a Tour
Preset Name
Dwell (sec.)
Speed
Magic Door 10 3
Magic Front Desk 10 3
Magic Window1 10 3
Magic Window2 10 3
Add...
Delete
OK
Cancel


Camera1
Camera2
Camera3
Camera4
TV-OUT
Preset
Touring
Run (Tbiet tour)
Stop Touring
Add Tour...
Delete Tour
8/19/2004 4:10:55 PM
Server Admin Mode
MagicRadar™ CS16
Setup
Network
Adjust
Brightness
Contrast
Saturation
Hue
Default
PTZ
Zoom
IRIS
Focus
Preset
Touring
Lights
Speed
AUTO
Camera
1 2 3 4 5 6 7 8
9 10 11 12 13 14 15 16
Power
Control
Status
Search

● Output Device



MagicRadar DVR system can be equipped with as many as 8 output devices.
Simply check the boxes for use.
In addition, outputs can be manually activated from Control screen (Manual Alarm).



Double-click on “Output” for individual output setup.

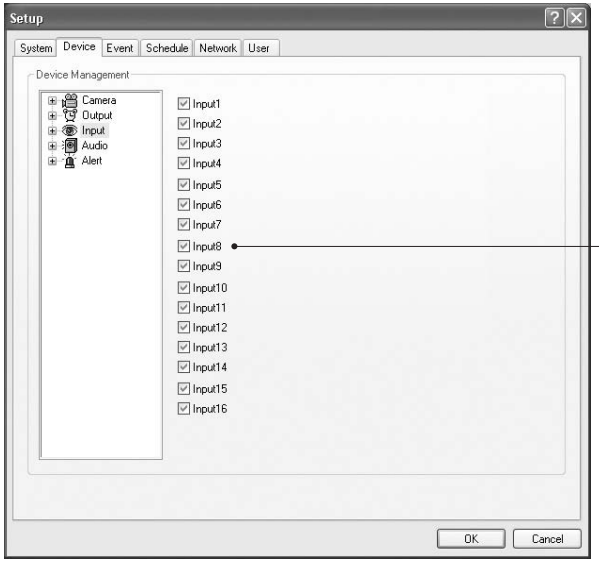
Name: Output device name.

Length of Activation: The length of output activation (1-60 sec.).

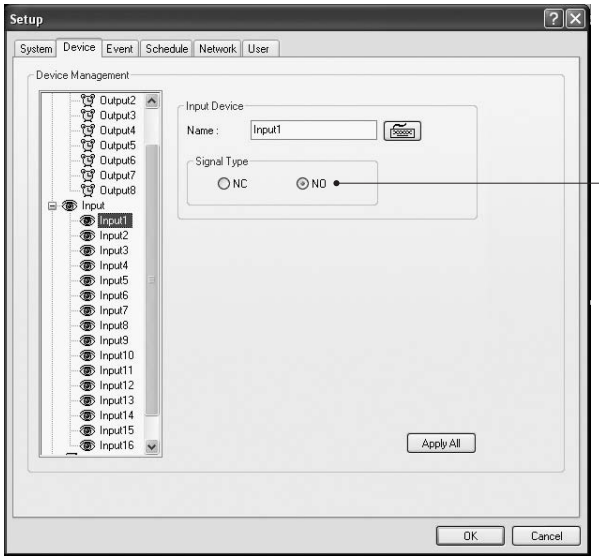
Length of Standby: The length of output deactivation until reactivation (0-60 sec.).

Apply All: The same settings will be applied to the rest of the output devices.

● Input Device

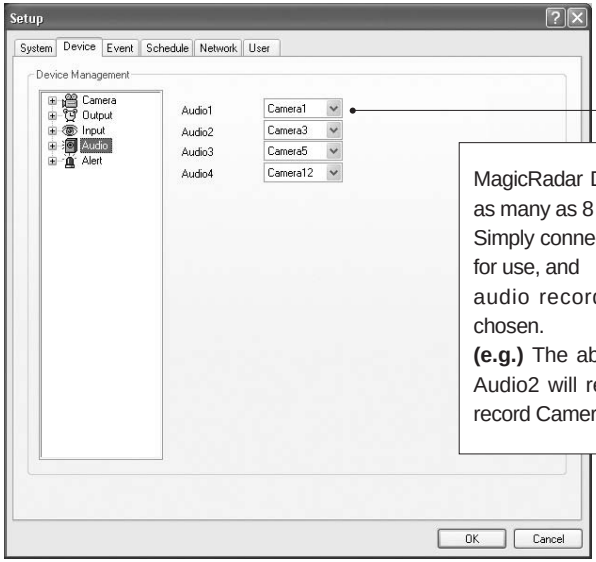


MagicRadar DVR system can be equipped with as many as 16 input devices.
Simply check the boxes for use.

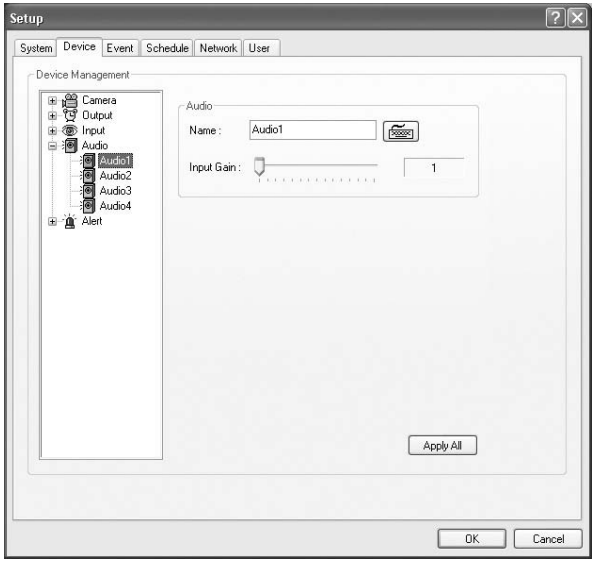


Each and every input can be tuned independently.
Signal Types:
NO: (+) & (-) detached normally
NC: (+) & (-) attached normally

● Audio

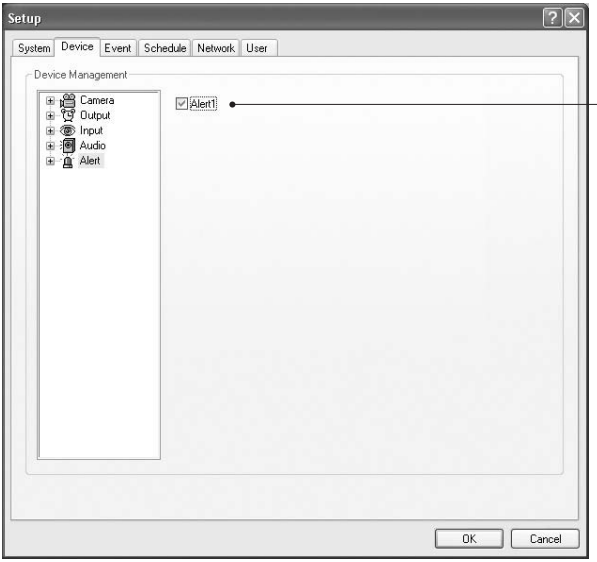


MagicRadar DVR system is equipped with as many as 8 audio channels.
Simply connect cameras to audio channels for use, and
audio recording will be completed as chosen.
(e.g.) The above selections indicate that Audio2 will record Camera3, Audio3 will record Camera5, etc.

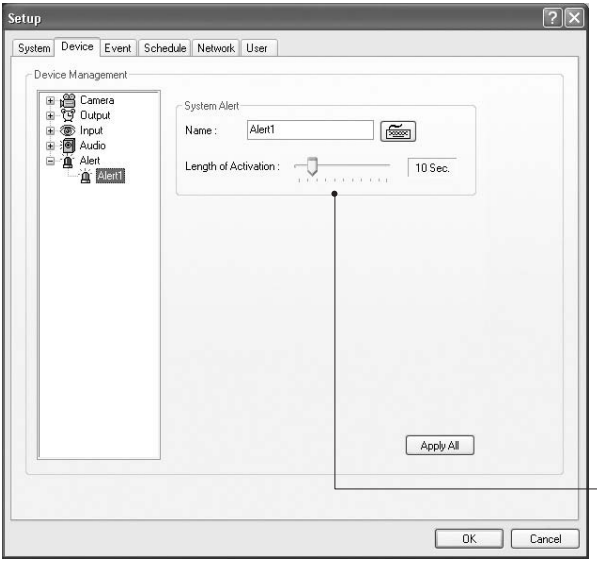


Input Gain (1-15): It is audio level control similar to volume control.

● Alert



MagicRadar DVR system is equipped with 1 alert device. Alert is the beep inside the system that sounds in the case of event.
Check the box for use.

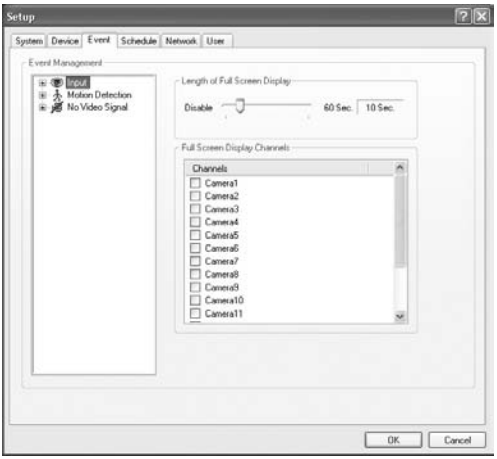


Length of Activation:
The length of alert activation (1-60 sec.).

(3) Event

"Event" consists of 3 different groups; "Input", "Motion Detection" and "No Video Signal".
On this menu, devices can be set to respond to different events.

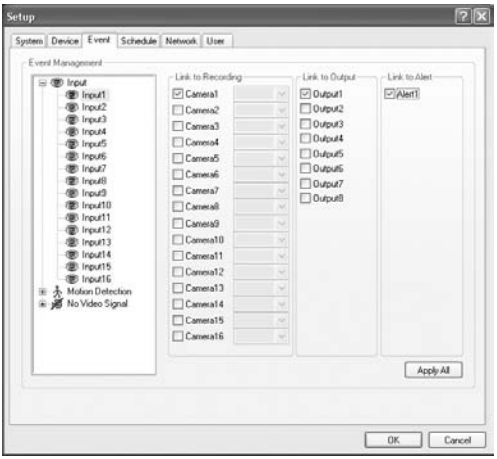
● Input



Length of Full Screen Display:
The time length for full screen display in the case of input device activation.

Full Screen Display Channels:
Camera channels to be full-screen displayed.

Link to Recording:
One Input device can have as many as 16 recording cameras on activation.
The below example shows that Camera1 will record in the case of Input1 activation.

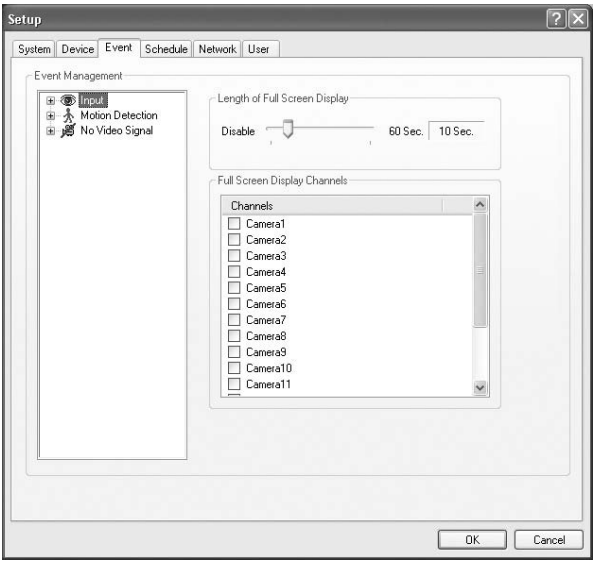


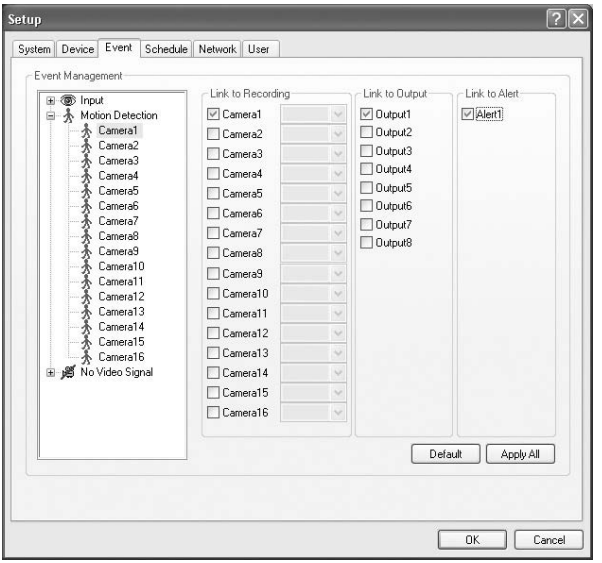
Link to Output:
One Input device can have as many as 8 activating output devices on activation. The above example shows that Output1 will be activated in the case of Input1 activation.

Link to Alert:
Input device can also be linked to alert.

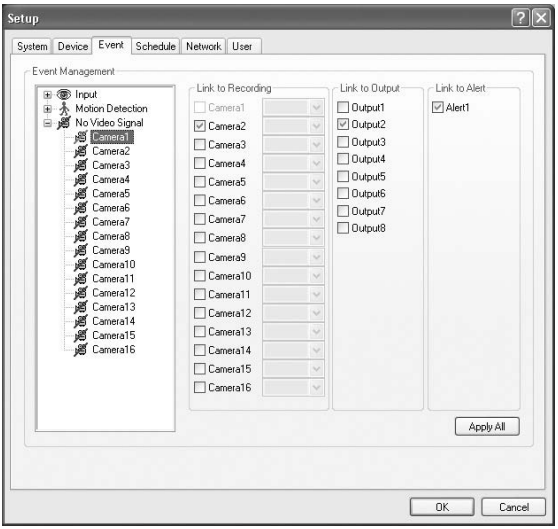
● Motion Detection

The same identical concepts and methods as “Input” are applied to the “Motion Detection”.





● **No Video Signal**

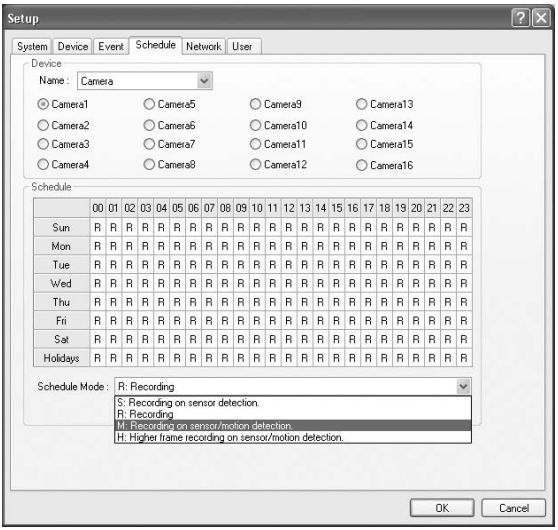


The same identical concepts and methods as “Input” are applied to “No Video Signal”. The above example shows that Camera2 will take over and record if there is a signal cut in Camera1.

(4) Schedule

“Schedule” is a place where the different activities of different devices are determined.

● **Camera**

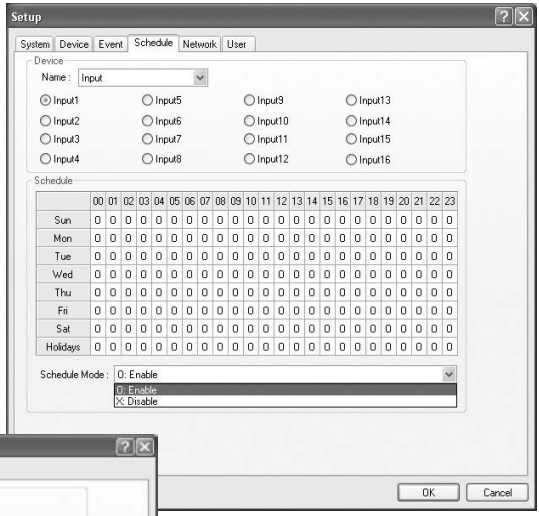


Each camera can have different recording options; scheduled recording by time & day and selective recording.

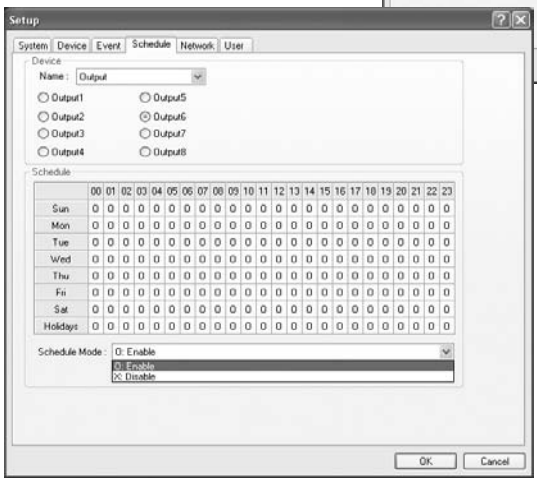
- **R:** Recording at all times
- **M:** Recording only on motion detection
- **S:** Recording only on sensor detection
- **H:** Recording at all times and higher frame recording on sensor/motion detection

The holiday recording schedule set at the bottom of the “Schedule” table will be applied to selected dates.

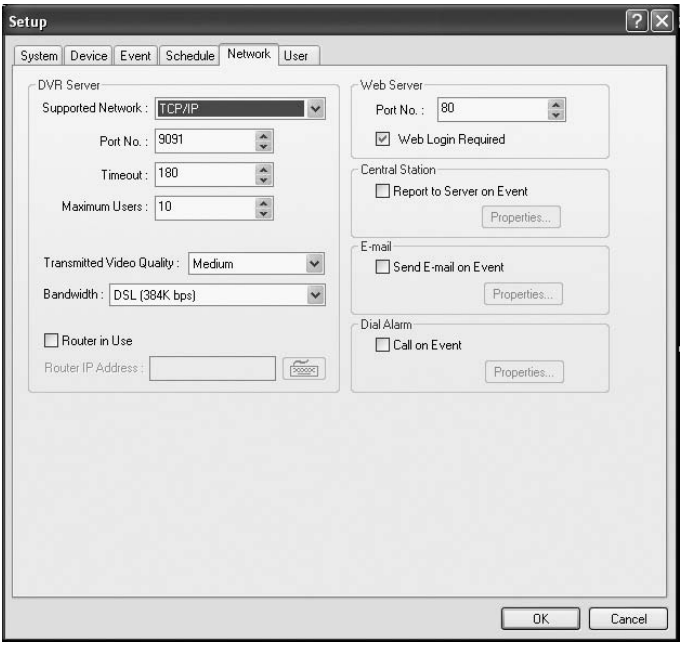
● **Input**


Setup
System Device Event Schedule Network User
Device
Name : Input
Input1 Input2 Input3 Input4
Input5 Input6 Input7 Input8
Input9 Input10 Input11 Input12
Input13 Input14 Input15 Input16
Schedule
00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Sun Mon Tue Wed Thu Fri Sat Holidays
Schedule Mode : 0: Enable
O: Enable
X: Disable
OK
Cancel

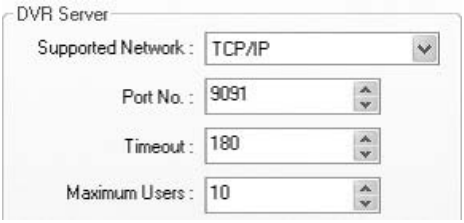
● **Output**


Setup
System Device Event Schedule Network User
Device
Name : Output
Output1 Output2 Output3 Output4
Output5 Output6 Output7 Output8
Schedule
00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Sun Mon Tue Wed Thu Fri Sat Holidays
Schedule Mode : 0: Enable
O: Enable
X: Disable
OK
Cancel

(5) Network



● DVR Server



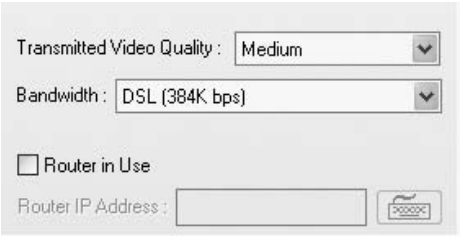
Supported Network:

1. TCP/IP - Connecting to DVR Server from Client using Lan or DSL
2. PSTN - Connecting to DVR Server from Client using PSTN or ISDN modem
3. None - Not allowed to connect to DVR Server remotely

Port No.: The default port number is 9091.

Timeout: The time length of trials to connect to DVR Server from Client

Maximum Users: The maximum number of users that can be logged in remotely.



Transmitted Video Quality:
Video quality to be transmitted to Client.
As a reminder, the higher video quality gets, the slower network transmission speed becomes. Therefore, it is often recommended to select low video quality when using "Narrowband".

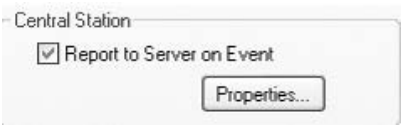
Router in Use: If there is a router in use, follow the steps below:

1. Check the box above.
2. Type in router's IP address.
3. Go to router setup
4. Register DVR's IP address.

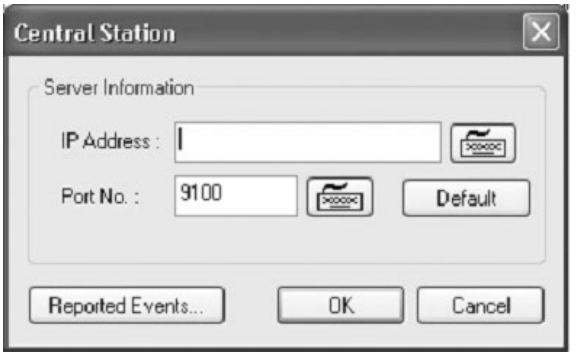
● Web Server

Port No.: Fixed HTTP Port No.
Web Login Required: If the box is checked, login is required when connecting DVR server using web browser. If the box is NOT checked, automatic login as "anonymous" will be done.

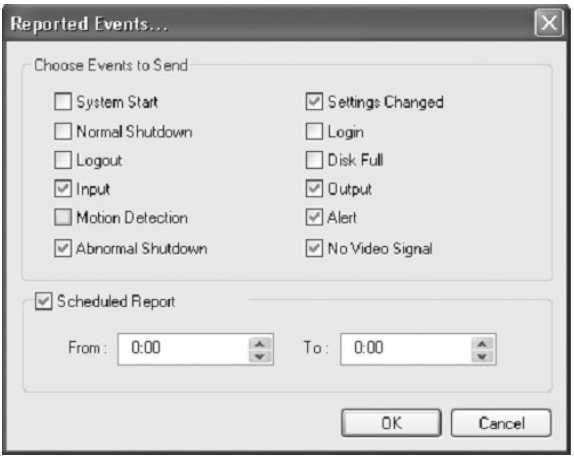
● Central Station



"Central Station" is a function that enables Client with static IP to manage multi DVR sites.
Check the box and click on "Properties" for setup.
Note: "DVR Manager" must be installed on Central Station Server(Client). For more details, refer to Appendix 3.

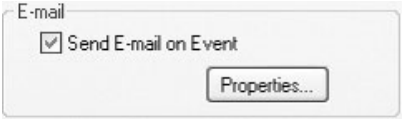


Type in the IP address of Central Station Server (Client with Static IP) and click on "Reported Events" for more setup.

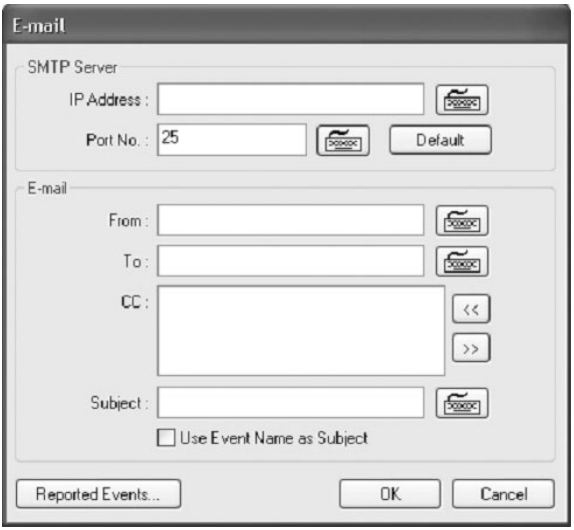


Choose events to report to Central Station server and set reporting time period.

● **E-mail**



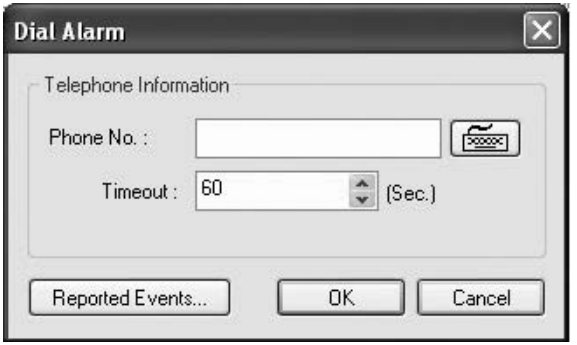
E-mail is a function that enables MagicRadar DVR system to send out e-mails when selected events occur. Check the box and click on “Properties” for setup.



Make sure to put in the right IP address of SMTP server. Then, click on “Reported Events” for more setup.
The “Reported Events” menu is the same as Central Station.

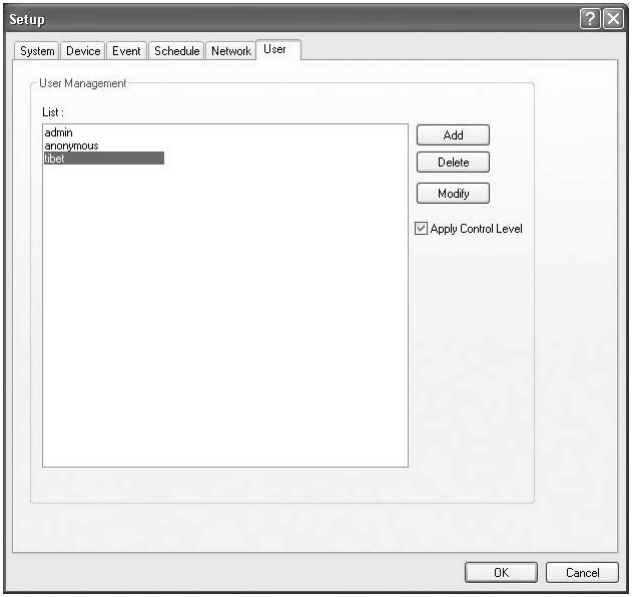
● **Dial Alarm**

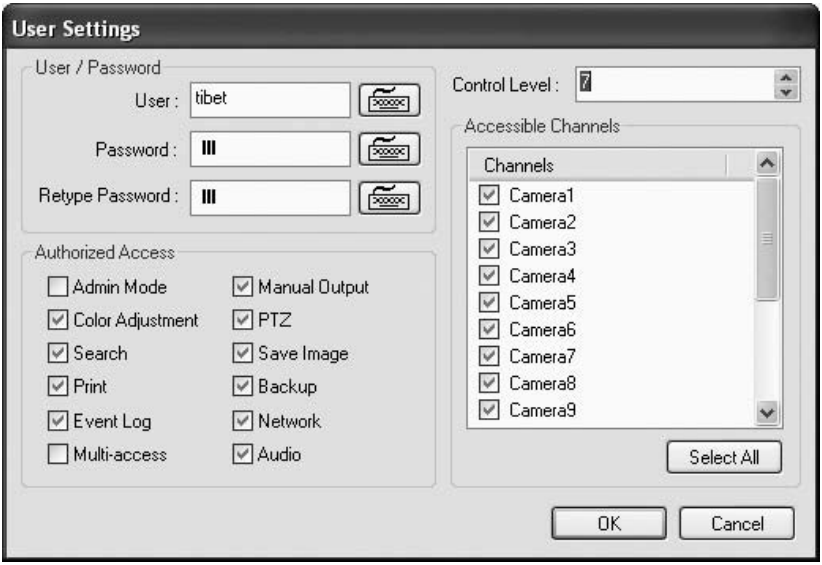
"Dial Alarm" is a function that enables MagicRadar DVR system to call out on selected events.
Check the box and click on "Properties" for setup.



Modem card must be installed inside MagicRadar DVR system to make this function work. Type in phone (mobile) number to report.
Click on "Reported Events" (same setup as Central Station) for more setup.

(6) User





Authorized Access: Checked functions will be allowed to access remotely.

Accessible Channels: Checked channels will be allow to view remotely.

Control Level: The lowest number will be allowed to have the first priority to set up, control, etc remotely.

Admin Mode: A user who can go into the setup and program (given the same authorization as "Admin"). Only ONE user with "Admin Mode" can log in remotely.

Network: If checked, remote access authorization will be given.

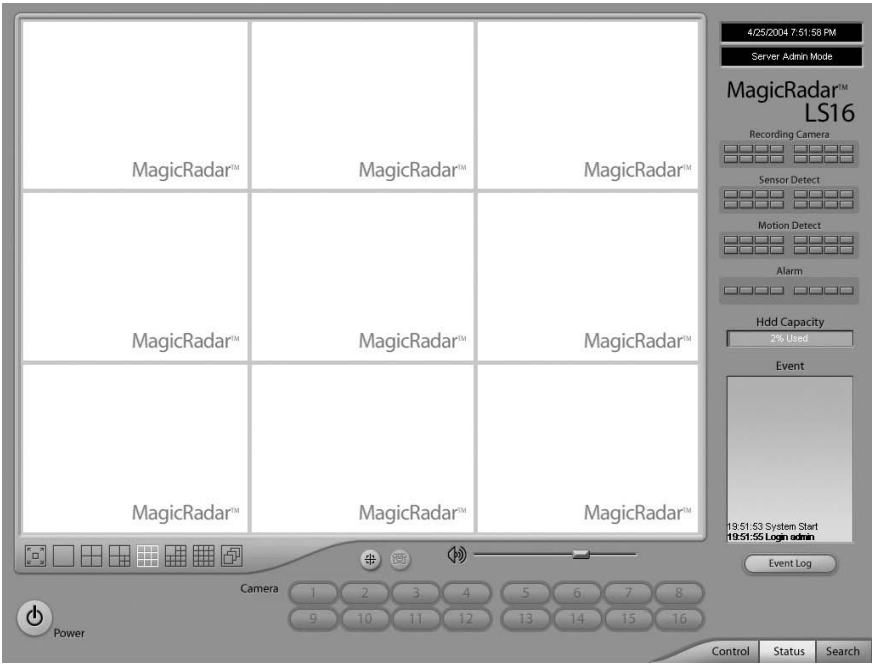
Multi-access: If checked, multi-users with the same user name can log in remotely at the same time.

Digital Video Surveillance System - MagicRadar

View Log Application

> Screen Features

- Event Log



1. Screen Features

Recording Camera: It shows recording status.

Sensor Detection: It shows sensor detection status.

Motion Detection: It shows motion detection status.

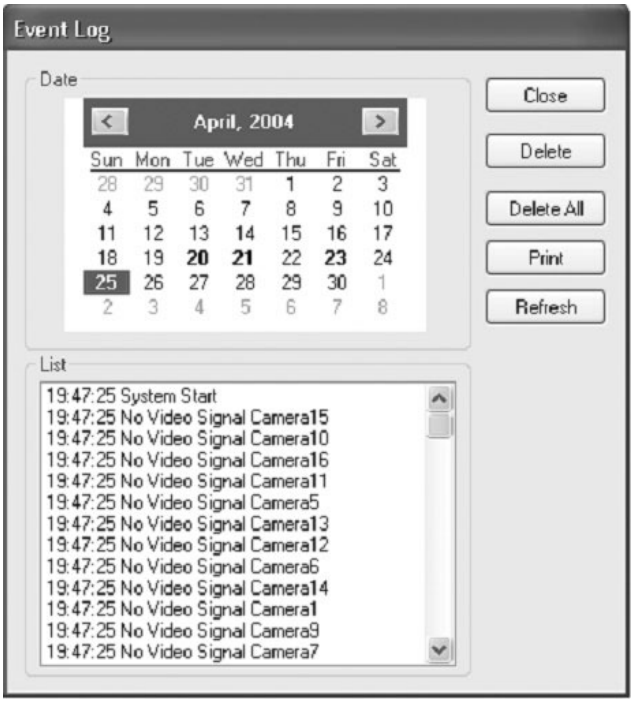
Alarm: It shows alarm activation status.

HDD Capacity: It shows HDD capacity used for recording.

Event: It shows events occurred.

Event Log: It shows all the previous events occurred by date.

(1) Event Log


Event Log
Date
April, 2004
Sun Mon Tue Wed Thu Fri Sat
28 29 30 31 1 2 3
4 5 6 7 8 9 10
11 12 13 14 15 16 17
18 19 20 21 22 23 24
25 26 27 28 29 30 1
2 3 4 5 6 7 8
Close
Delete
Delete All
Print
Refresh
List
19:47:25 System Start
19:47:25 No Video Signal Camera15
19:47:25 No Video Signal Camera10
19:47:25 No Video Signal Camera16
19:47:25 No Video Signal Camera11
19:47:25 No Video Signal Camera5
19:47:25 No Video Signal Camera13
19:47:25 No Video Signal Camera12
19:47:25 No Video Signal Camera6
19:47:25 No Video Signal Camera14
19:47:25 No Video Signal Camera1
19:47:25 No Video Signal Camera9
19:47:25 No Video Signal Camera7

Date: All dates with events will be marked in bold numbers.

List: All events for a certain selected date will be shown.

Delete All: If clicked, all the previous records will be deleted.

Delete: If clicked, only the events for a certain selected date will be deleted.

Refresh: If clicked, events will be updated.

Digital Video Surveillance System - MagicRadar

Chaper 5

Playback Application

> Search Features 1

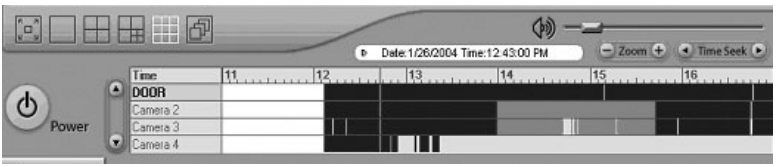
> Search Features 2

- Playback
- Event / Object Search
- Bookmark & Go To
- Save
- Print
- Backup

1. Search Features 1

Calendar: All dates with recorded data will be marked in bold numbers.
Blur/Sharp/Normal: Buttons to adjust sharpness of image
Zoom: Buttons to zoom in/out
Brightness: buttons to adjust brightness
Contrast: buttons to adjust contrast
Default: Default for Zoom/Brightness/Contrast

2. Search Features 2

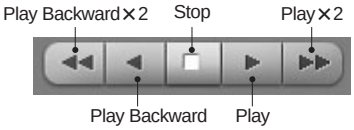


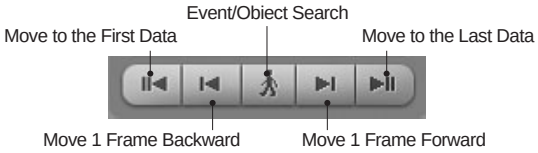
(1) Playback

For playback, simply select date, screen mode (1, 4, 9, 16, etc.), time by one click on the time bar and click the play button.

What different colors mean on the time bar:

- **Blue:** Recorded data by sensor & motion detection
- **Purple:** Recorded data by 24-hour-recording
- **White:** No recorded data in all cameras
- **Gray:** No recorded data for some cameras
- **Green:** Blue + audio
- **Light Green:** Purple + audio
- **Orange:** Recorded text data (POS)

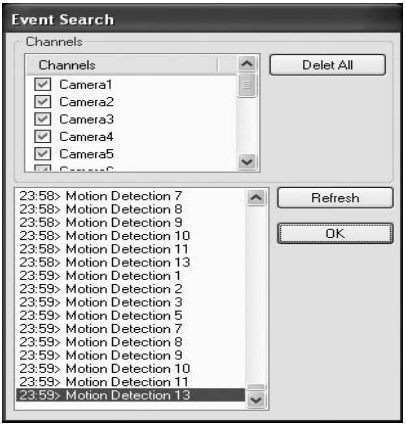




(2) Event/Object Search

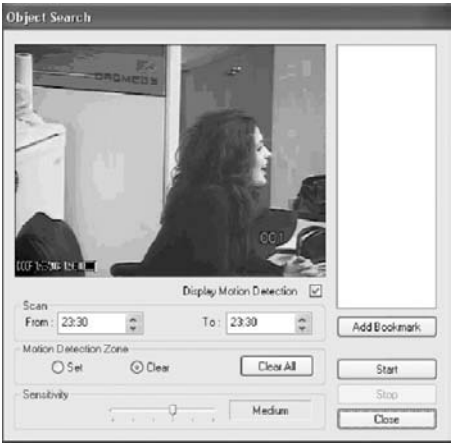
[Event Search]

Click the Event/Object Search button and select “Event”.



Select channels for Event Search.
Select one event from the event list and click “OK”, and the selected event will be displayed.
Click “Refresh” to update the list.

[Object Search]



Object Search is only to search certain selected objects for a certain period of time.

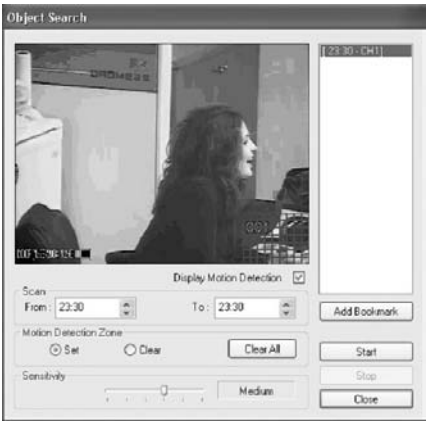
Scan: Set the time period for object search.

Motion Detection Zone: Select “Set” and mark areas by dragging mouse.
“Clear” is used to erase certain areas inside motion detection zones.

Sensitivity: It means “Motion Detection Sensitivity”.

Display Motion Detection: If checked, green motion detection blocks will be displayed.

Clear All: Click on it to clear all the motion detection zones set.

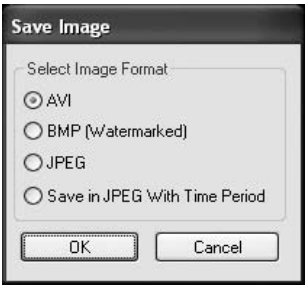


(3) Bookmark & Go To

Bookmark (Favorites):
Added data from “Object Search” are stored here.

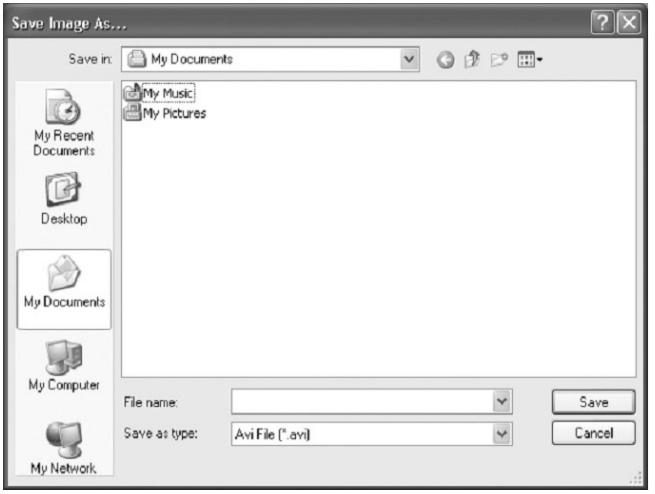
Go To:
Select desired time to search and click “OK”.

(4) Save



AVI: For saving motion pictures and audio
BMP: For saving images. Watermarked images can be saved.
JPEG: For saving regular still images. Quality is not as good as BMP but less HDD is used.
Save in JPEG with Time Period: For scheduled save in JPEG

[Save in AVI Format]

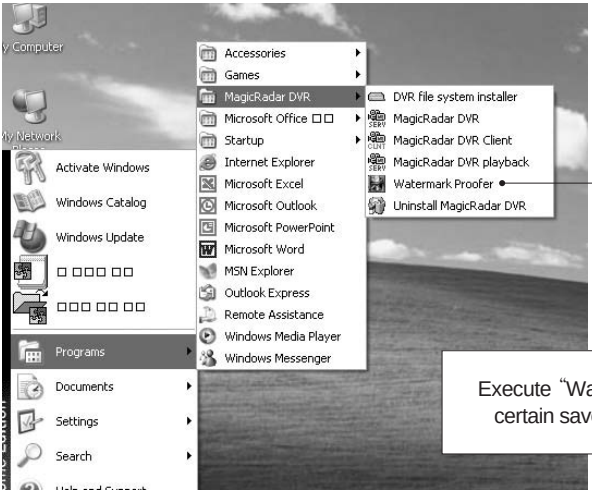


Click “Start” to start saving and “Stop” to stop saving.
Mute: Saving video only (no audio)
High Speed: Saving in high speed

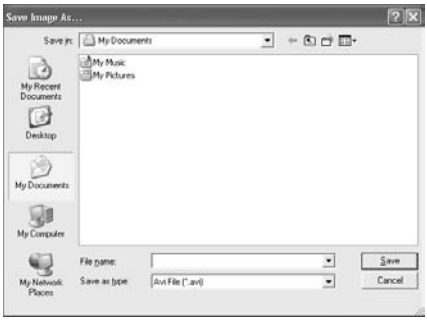
[Save in BMP Format]

[Save in BMP Format]	Click “Start” and select “BMP” as you save images. Saved images can be checked using “Watermark Proofer”.

[Watermark Proofer]

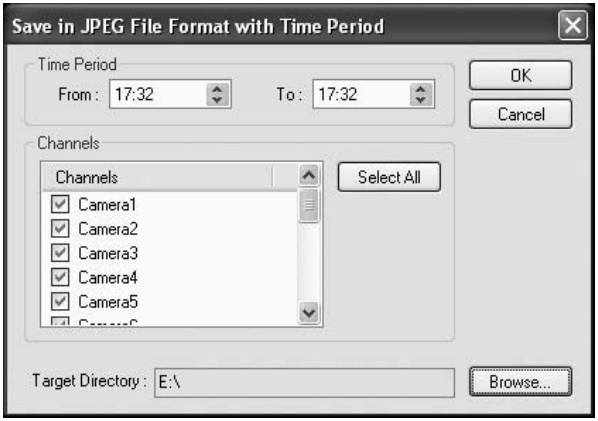


Execute “Watermark Proofer” and check if certain saved images are forged or not.

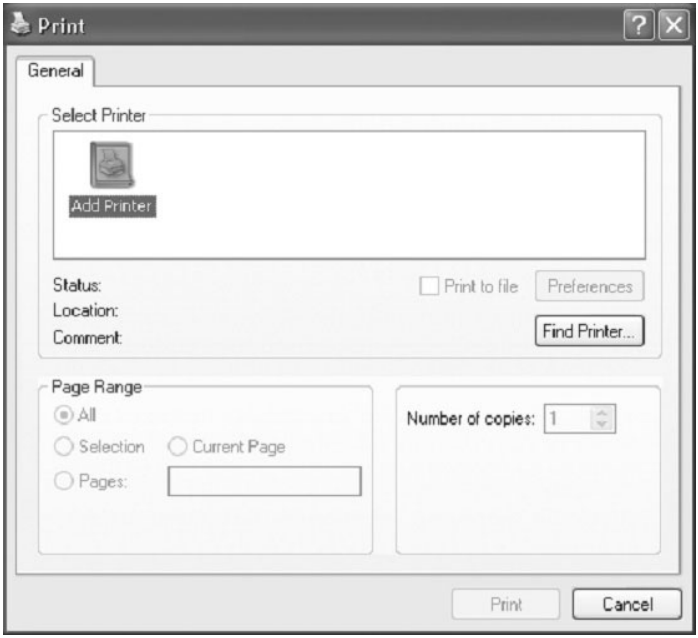


[Save in JPEG Format] ➲ Click “Start” and select “JPEG” as you save images.

[Save in JPEG with Time Period] Select time period and select channels to be saved in JPEG.



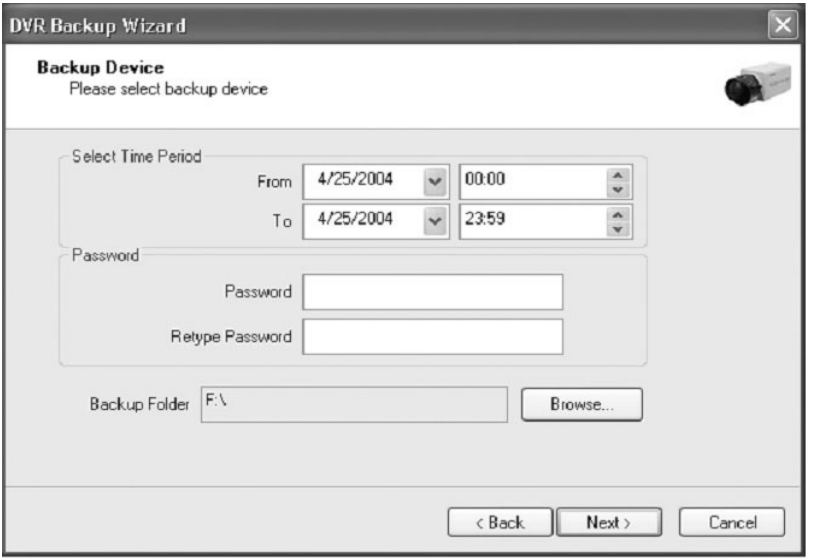
(5) Print



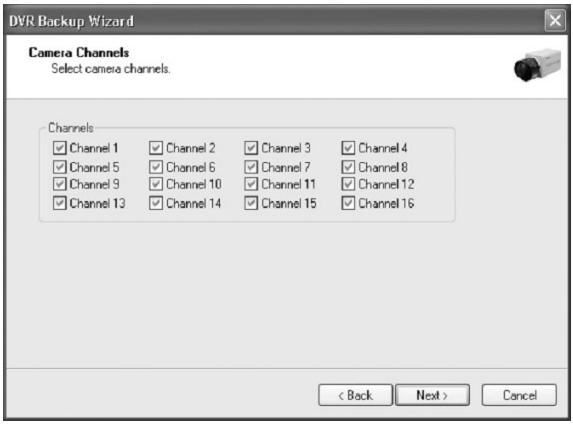
Click the “Print” button and follow the same printing procedure as you would normally print out documents.

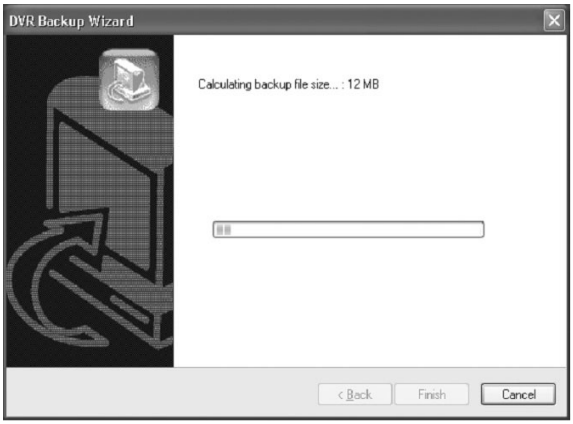
(6) Backup

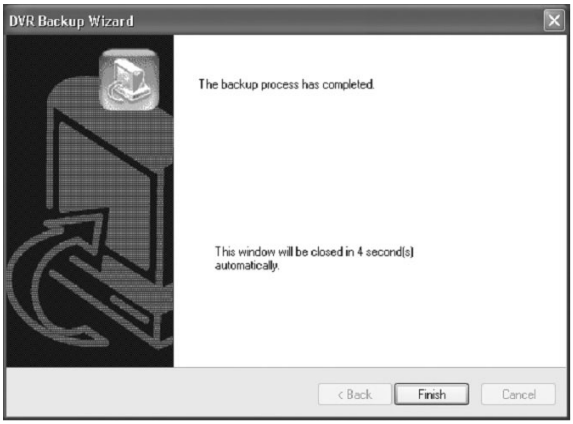
Back up recorded data using various backup devices.



If password is set, viewing backup data will be possible only when it is typed in.


DVR Backup Wizard
Camera Channels
Select camera channels.
Channels
Channel 1
Channel 2
Channel 3
Channel 4
Channel 5
Channel 6
Channel 7
Channel 8
Channel 9
Channel 10
Channel 11
Channel 12
Channel 13
Channel 14
Channel 15
Channel 16
< Back
Next >
Cancel


DVR Backup Wizard
Calculating backup file size... : 12 MB
< Back
Finish
Cancel


DVR Backup Wizard
The backup process has completed.
This window will be closed in 4 second(s) automatically.
< Back
Finish
Cancel

Digital Video Surveillance System - MagicRadar

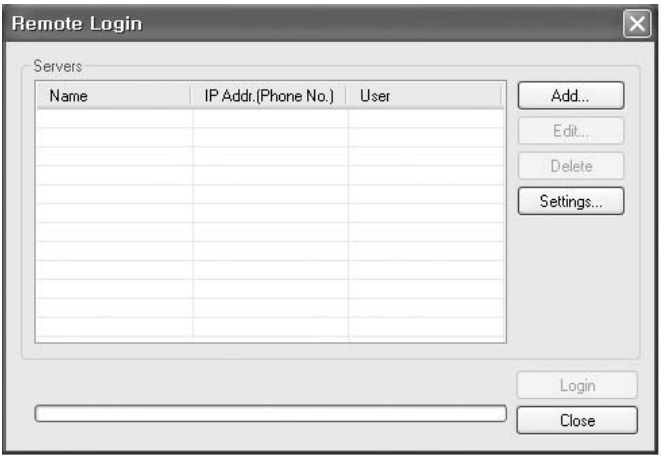
Chaper 6

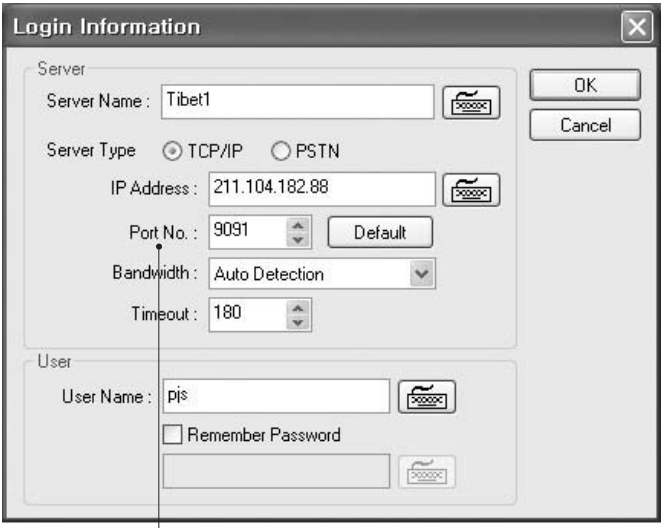
Remote Monitoring System

> Program Execution

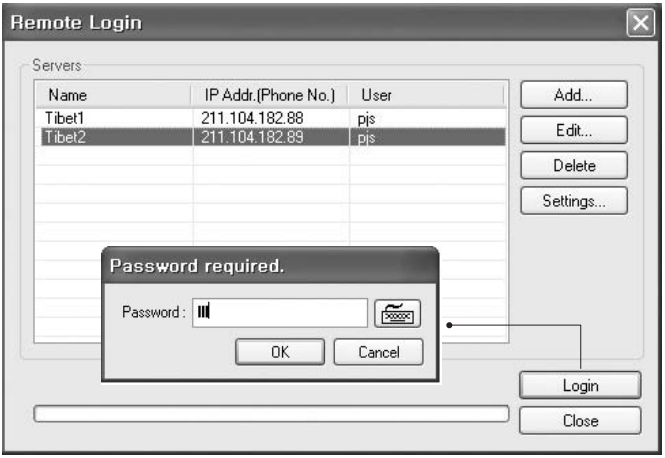
1. Program Execution

Double-click on the “MagicRadar DVR Client” icon on the desktop to execute Remote Monitoring System (Client).

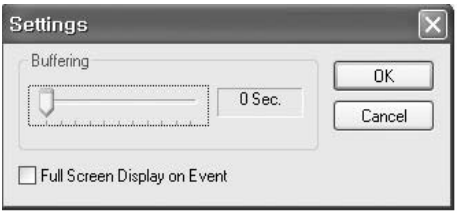




Note: Make sure to put the same Port No. as DVR server.



There can be more than one DVR server registered.
Select one from “Servers”, click on “Login” and type in password to log in.
Edit: Login info. changes can be made here.
Delete: Registered servers can be deleted with one click.



Full Screen Display on Event: If checked, full screen will be displayed on events.

Digital Video Surveillance System - MagicRadar

POS DVR

> Hardware Installation

> Software Installation

I-phone

> Installation

> Execution

> Audio Setup

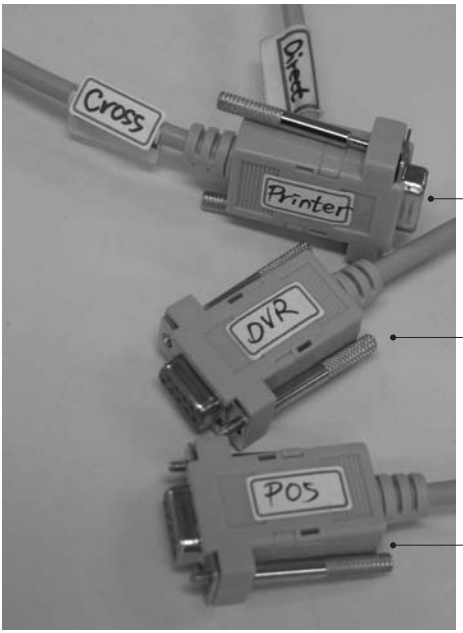
DVR Manager

> Installation

> Execution

1-1. Hardware Installation

(1) Parts

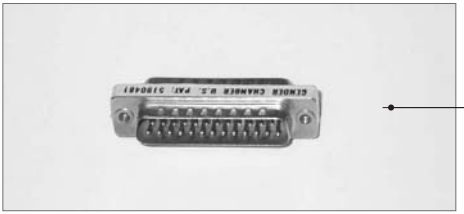


a. RS232 Serial Cables
(Cross & Direct)

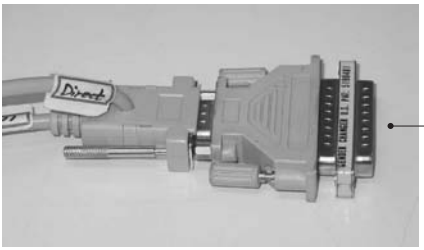
b. RS232 Serial Cable

c. RS232 Serial Cable

d. RS232 Serial Converter
(9 pins into 25 pins)



e. Gender Changer



f. a + d + e

g. DVR

h. POS Printer

i. Point of Sales (POS)

(2) Installation

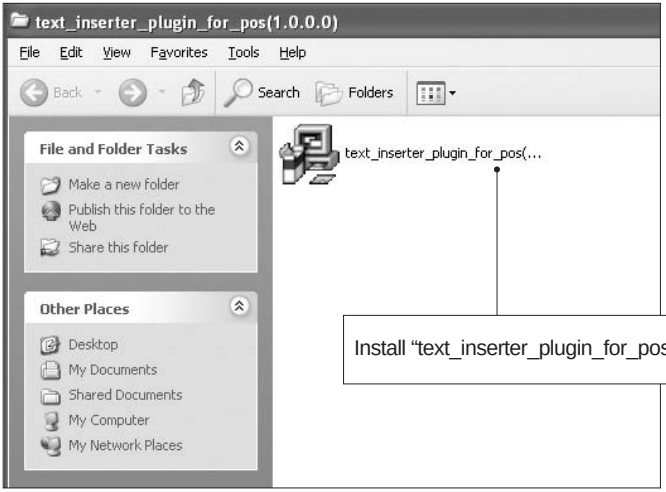
▶"b" goes into the COM Port 1 of "g".

▶"a" goes into the serial port of "h".

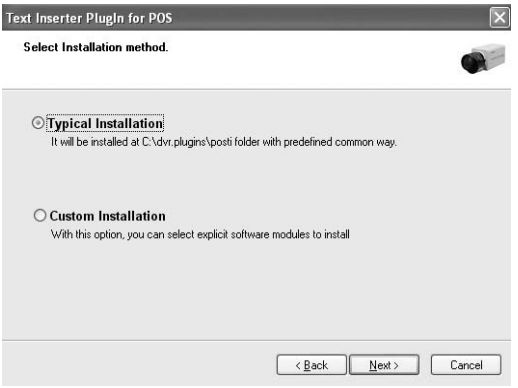
▶"c" goes into the serial port of "i".

1-2. Software Installation

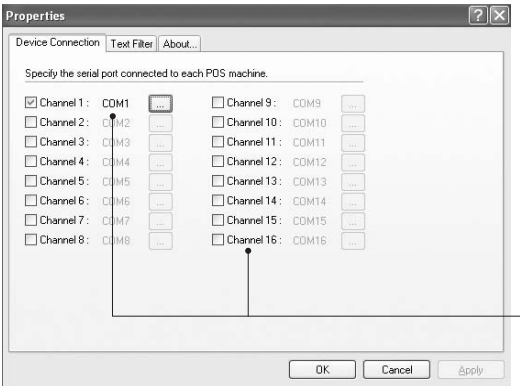
(1) Installation & Setup



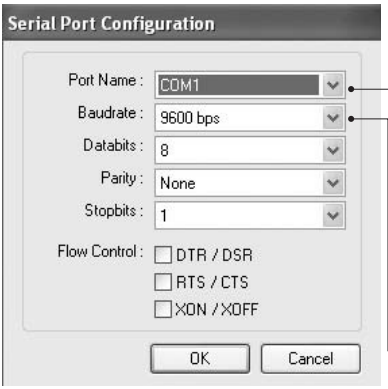
Text Inserter PlugIn for POS
Text Inserter PlugIn for POS
Release Version 1.0.0.0
It's starting setup process with pressing [Next] button.
< Back
Next >
Cancel
Click “Next” to start.


Text Inserter PlugIn for POS
Select Installation method.
Typical Installation
It will be installed at C:\dvr.plugins\posti folder with predefined common way.
Custom Installation
With this option, you can select explicit software modules to install
< Back
Next >
Cancel

Select “Typical Installation” for automatic installation.

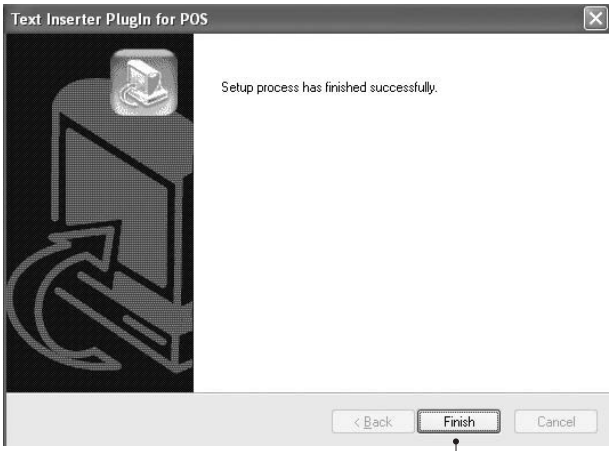


Select camera channels and click the com port buttons for serial port configuration.

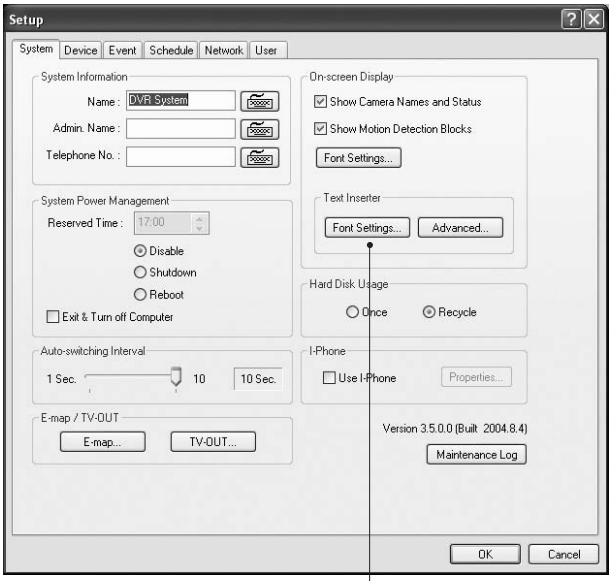


Make sure to select “COM1” if POS printer is connected to com port 1.

The Baud rate value is normally 9600.

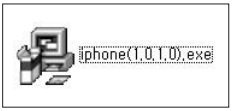


Click “Finish” to complete.



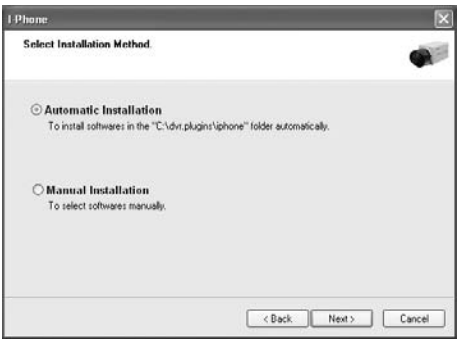
Go to “Text Inserter” in the DVR setup and choose different fonts and different display corners.

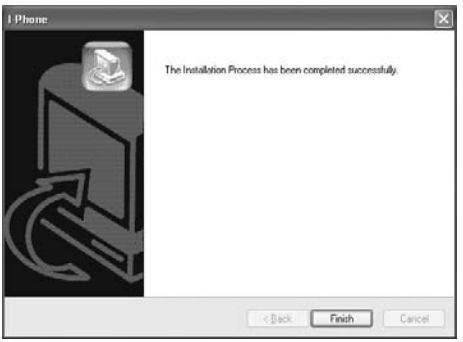
2-1. Installation



Any system used for “Two-way Communication” must have static IP and “iphone(1.0.1.0).exe” must be installed.
For I-phone installation, double-click on “iphone(1.0.1.0).exe”.

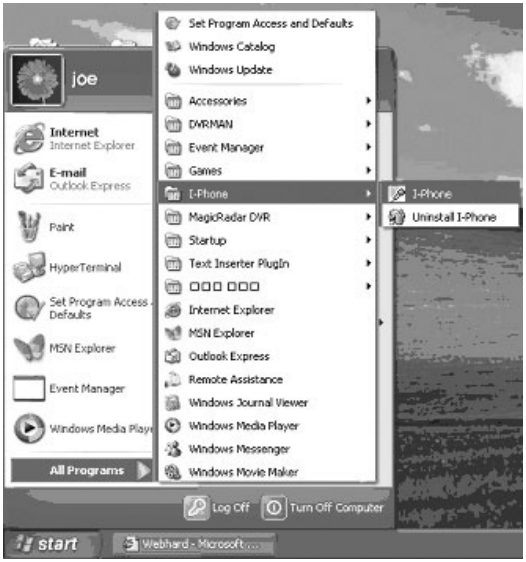
Click “Next” to start installation process and select “Automatic Installation”.





Click “Finish” to complete the process.

2.2 Execution



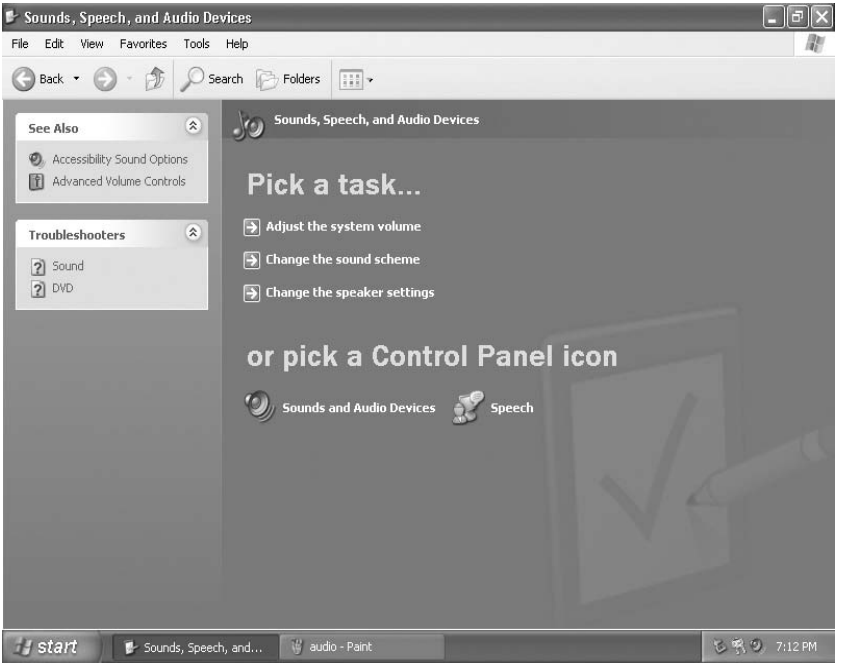
Go to “Start”, “All Programs”, find “I-phone” and select it for execution.

Find the I-phone icon at the right bottom and click it for the next step.

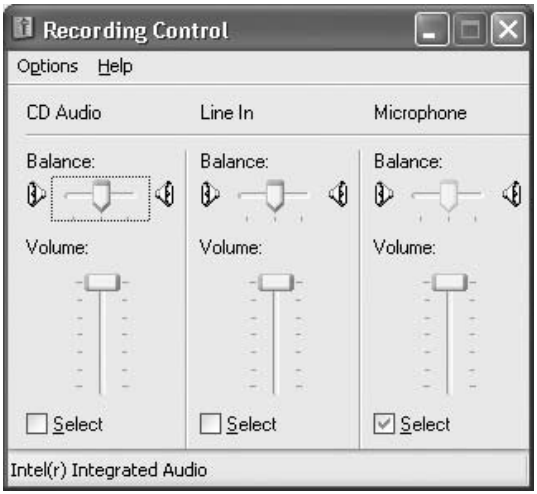
Select “Call” for Two-Way “Communication”, type in IP address and click “Connect”.

Property : The default port number is 8015 and the default timeout value is 5 seconds. Leave them as they are unless other values must be used.

2.3 Audio Setup



Go to “Control Panel”, “Sounds, Speech and Audio Devices” and “Sounds and Audio Devices”. Then, go to “Audio”, “Sound playback” and click “Volume”.

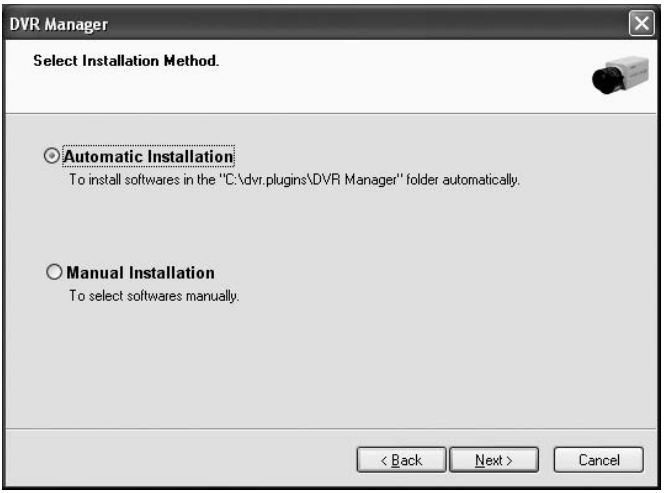


Recording Control should be set up this way.

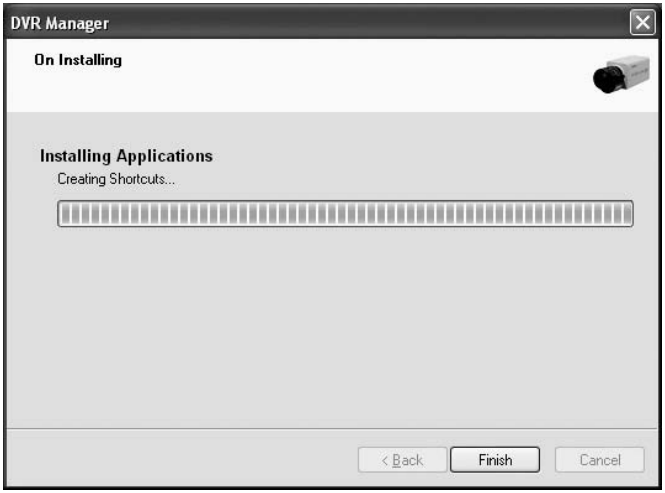
3.1 Installation

(1) Start >> Click "Next" to start installation process.

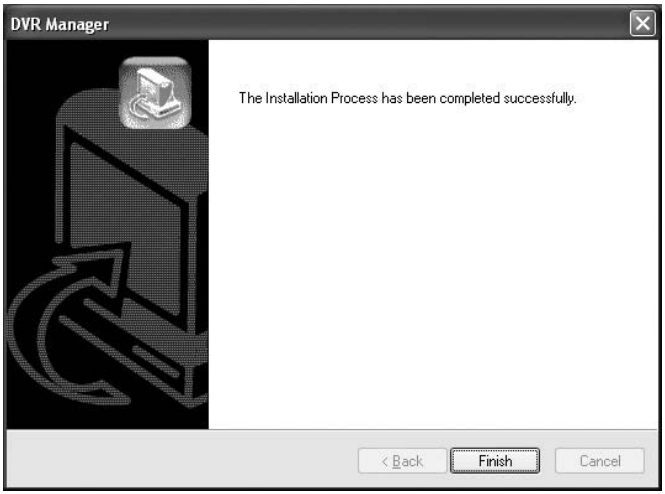
(2) Selection of Installation Method >>
Select "Automatic Installation"



(3) On Installing (copying drivers and files)



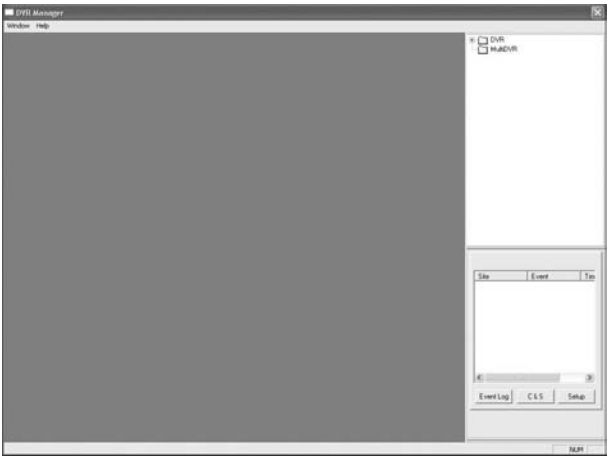
(4) Finish >> Click "Finish" to complete.

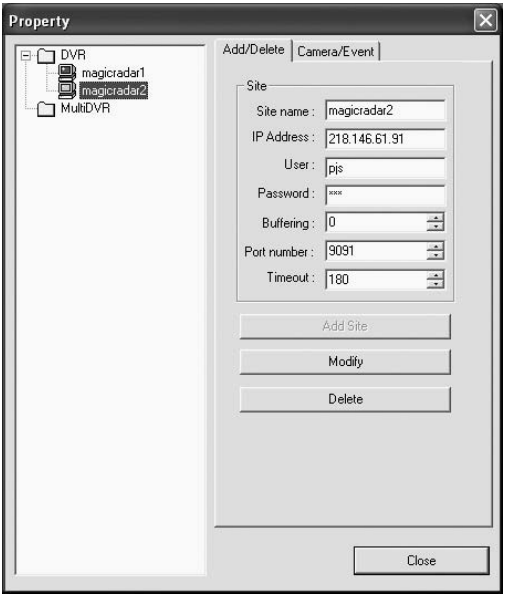


3.2 Execution

(1) DVR >> It monitors one specific site selected.

● **Setup:** Click on the folder, “DVR” and click on “Setup” to proceed.



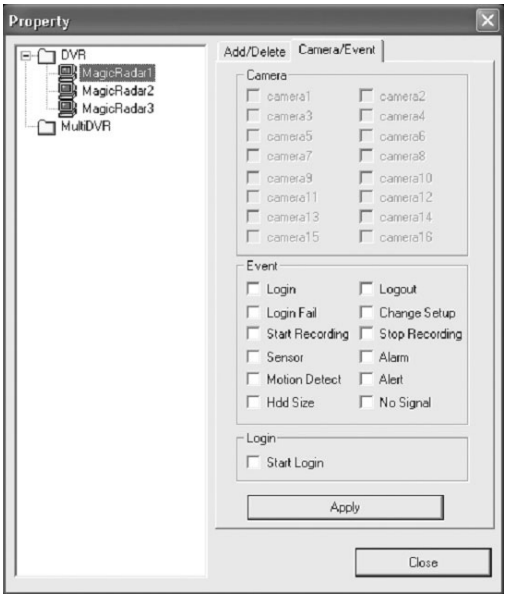


Registration Steps:

1. Click on the folder, “DVR”.
2. Type in all the required info.
3. Click “Add Site” for completion.
4. Repeat the above steps to register more sites.

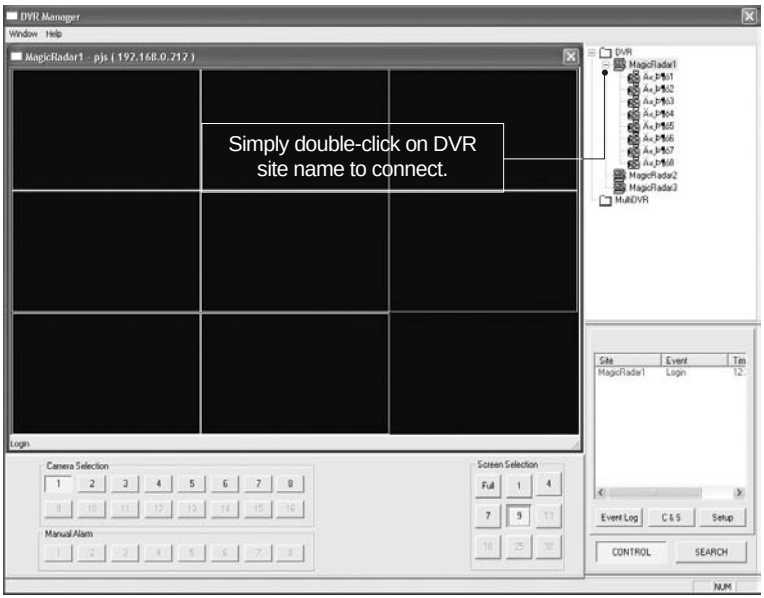
Note:

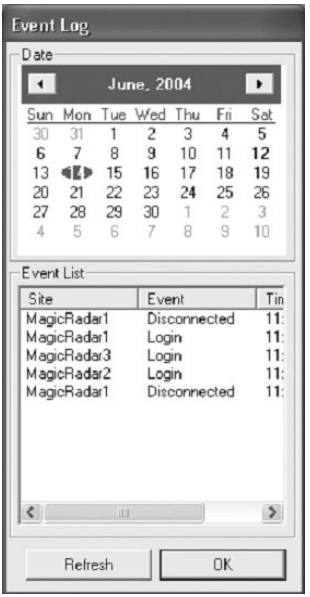
1. To edit a DVR site, select it from the tree on the left, edit it and click on “Notify”.
2. To delete a site, select it and click on “Delete”.



Checked events will be reported to DVR Manager and recorded in Event Log.

● **Control**



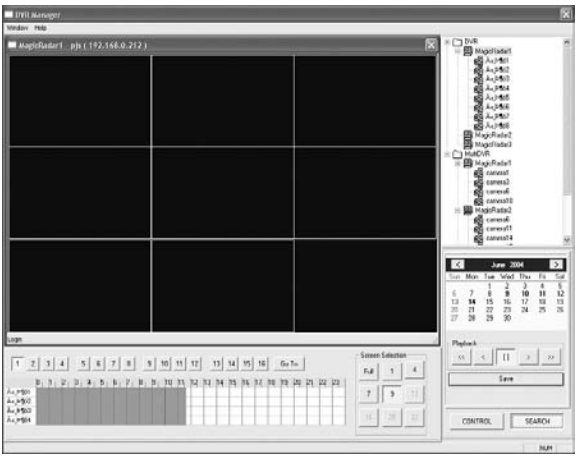


Manual Alarm

Setps:

1. Set alarms on the DVR Server.
2. Monitor on DVR Manager.
3. Detect event.
4. Click alarm button.

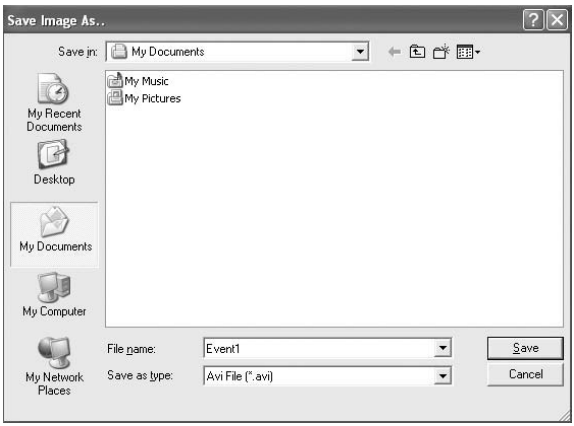
● Search

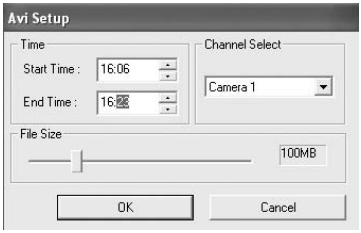


Search Steps:

1. Select a DVR site from the tree at the top right for playback.
2. Select a date from the calendar.
3. Select time to be searched either by clicking on the time bar or by using “Go To”.

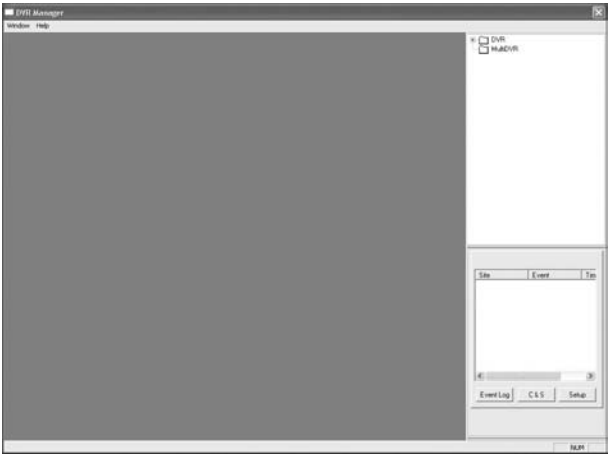
● **Saving in AVI File Format**

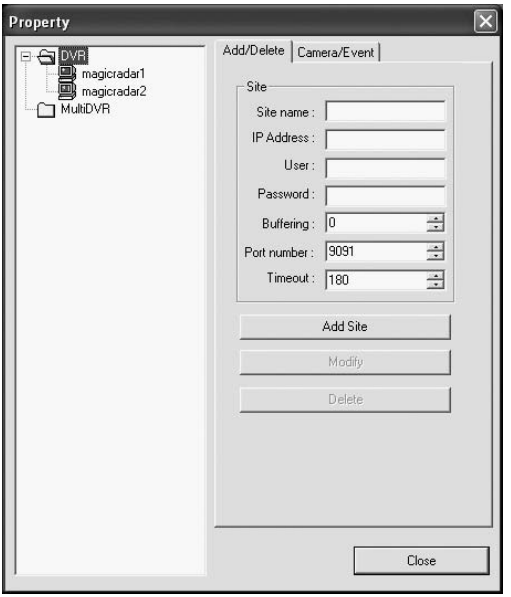




(2) MultiDVR >>
It monitors as many as 32 cameras from different DVR sites.

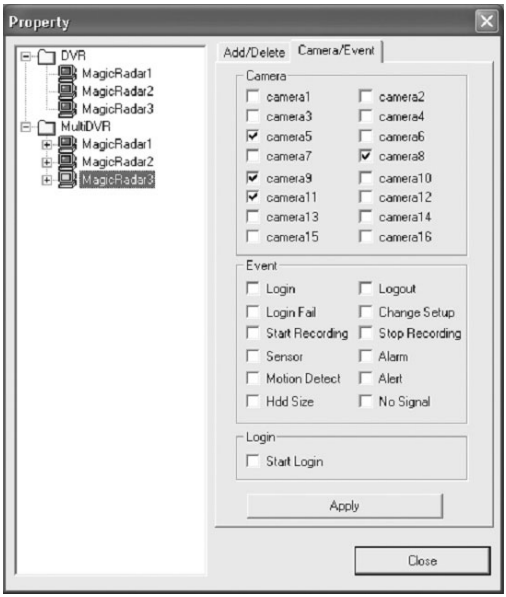
● **Setup:** Click on the folder, “DVR” and click on “Setup” to proceed.



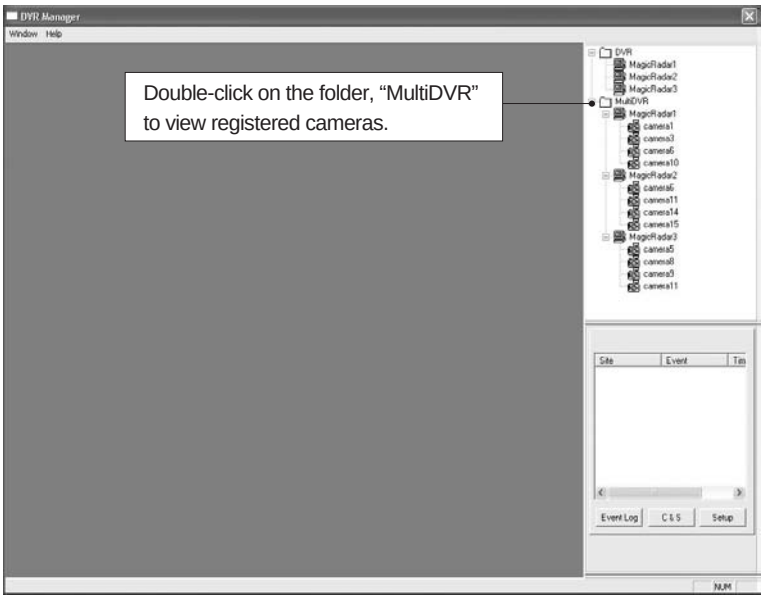


Registration Steps:

1. Click on the folder, “MultiDVR”.
2. Type in all the required info.
3. Click on “Camera/Event”.
4. Select cameras to monitor.
5. Click on “Apply”.
6. Repeat the above steps to register as many as 32 cameras.

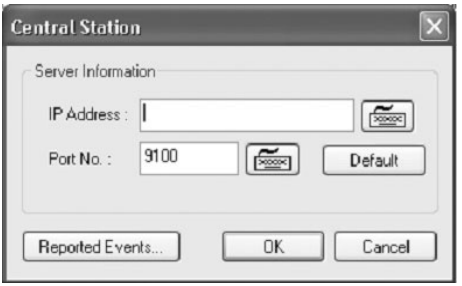

Property
DVR
MagicRadar1
MagicRadar2
MagicRadar3
MultiDVR
MagicRadar1
MagicRadar2
MagicRadar3
Add/Delete
Camera/Event
Camera
camera1
camera2
camera3
camera4
camera5
camera6
camera7
camera8
camera9
camera10
camera11
camera12
camera13
camera14
camera15
camera16
Event
Login
Logout
Login Fail
Change Setup
Start Recording
Stop Recording
Sensor
Alarm
Motion Detect
Alert
Hdd Size
No Signal
Login
Start Login
Apply
Close

● **Control**

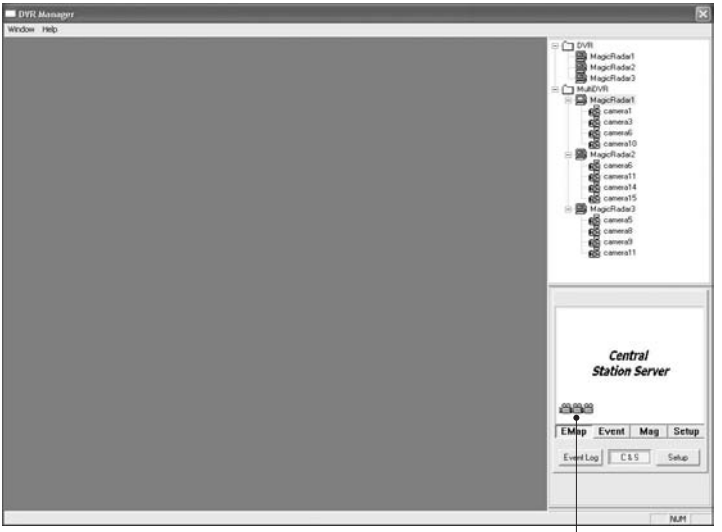

DVR Manager
Window Help
Double-click on the folder, “MultiDVR” to view registered cameras.
DVR
MagicRadar1
MagicRadar2
MagicRadar3
MultiDVR
Site
Event
Event Log
C & S
Setup
NUM

(3) C & S (Central Station) >>
It manages events received from numerous DVR sites.

● **Setup**



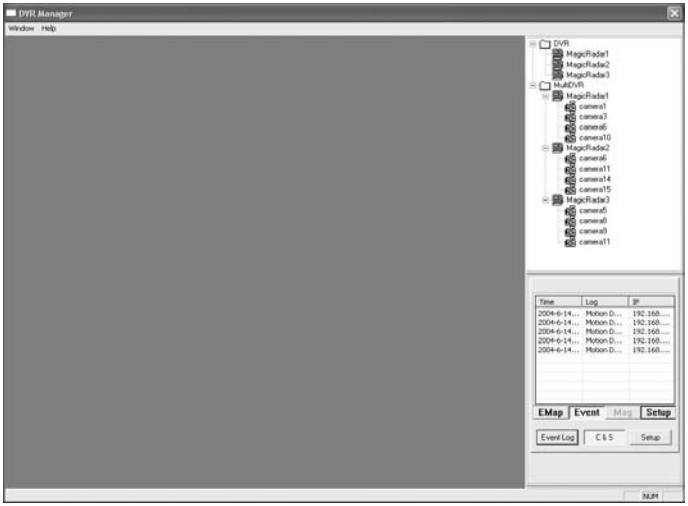
On each DVR server, go to “Setup/Network” and check the box next to “Central Station” Then, type in the IP address of DVR Manager and select events to report.



On DVR Manager, click on the button, “C&S”, and registered DVRs will be seen on E-Map.

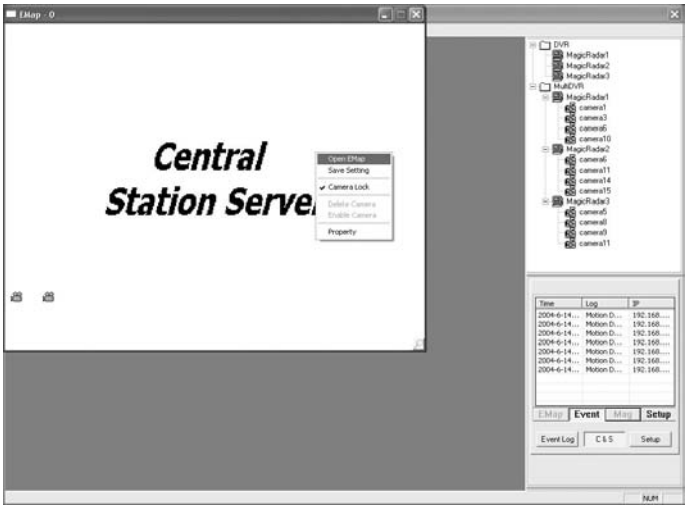
Click on “Setup” for port setup. The default value, 9100 is good to use in all cases.

● **Event**

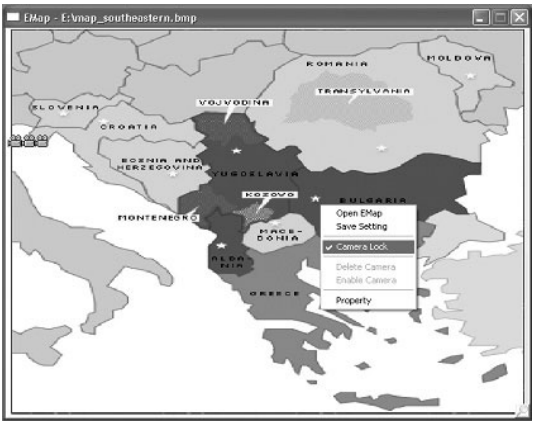


"Event" displays all the events coming in from registered DVRs.
Double-click on event to go to DVR server.

● **E-Map**

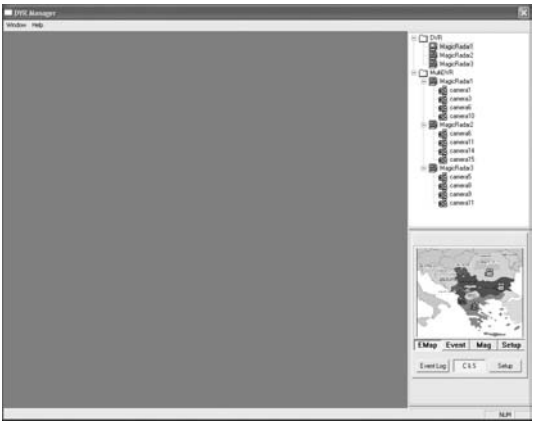


Click on "Mag" to configure E-Map. To create an E-Map image, click on the right mouse and select "Open E-Map". Only BMP file can be in use.



Click on the right mouse and select “Camera Lock” to be able to position DVRs at desired locations.

Click on the right mouse and select “Save Setting” to save image and camera locations.



After configuration, selected E-Map image and all DVR sites at selected locations can be viewed. To visit a certain DVR site using E-Map, click on “Mag” and double-click on the site (camera-shaped symbol). Any DVRs (cameras) blinking in red and blue have events happening.

Restricting incoming events and receiving only desired events can be done regardless of DVR setup. On E-Map, click on the right mouse and select “Property”. Only checked events will be reported to C&S. Click on “All Apply” to give the same conditions to all the rest of the DVR sites.